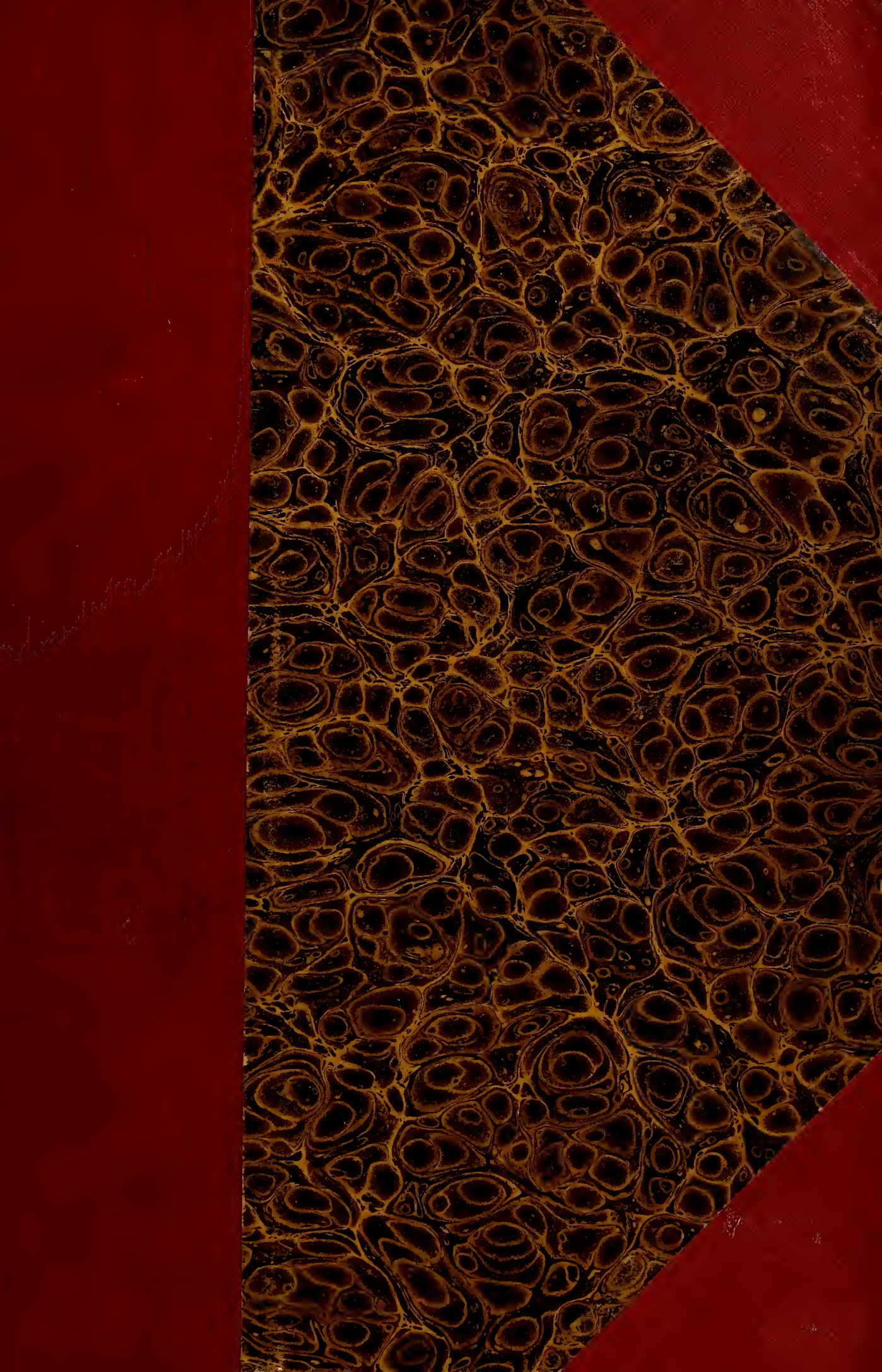


THE NEW ENGLAND MEDICAL GAZETTE

A Monthly Journal of Homœopathic Medicine

EDITORS:
DEWITT G. WILCOX, M.D., F.A.C.S. :: ARTHUR H. RING, M.D.

ASSISTANT EDITORS:
CONRAD WESSELHOEFT, 2d, M.D.
SANFORD B. HOOKER, M.D.

"Die Milde Macht Ist Gross"

VOLUME XLIX

BOSTON
1914

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX JANUARY, 1914 No. 1

ORIGINAL COMMUNICATIONS.

HOMŒOPATHY IN NERVOUS DISEASES.*

By E. P. Colby, M.D.

It is really an unnecessary refinement to select one class of diseases to emphasize the benefits of homœopathy; but it is natural for one to turn to that in which he is most interested, for the purpose of illustration. For over twenty years my attention has been so almost entirely devoted to this type of maladies, that examples of the treatment of nervous diseases by our method are the freshest and most strongly impressed upon my mind. I shall not endeavor to make an analytical comparison of results in our school and in the more dominant one, for with such hearers as now this is unnecessary. You have each and all, had long experience and know your profession well; I think this may be relied upon as sufficient. The neurologist meets with many perplexing problems, certainly more often than does the general practitioner. In the first place he is more likely to have cases which he knows from the outset are incurable, because central tissue has been destroyed, which can never be regenerated, but far more perplexing are those cases where there is no discoverable lesion, (which we term "functional"). A large number of these cases are mimetic, and so closely imitate organic disease that differentiation is extremely difficult. In the former instance, you all know how strong is the temptation to enter upon a course of treatment whose sole object is to obtund the sense of pain and the intellect. We recognize that there are times and occasions where this is necessary for humanitarian reasons; but as a rule of procedure we can probably agree that the selection, and administration, of the proper remedy, will result in a greater aggregate of comfort to the patient; this both direct, and indirect. Personally I believe this to hold true even in such unpromising condition as "tabes." Please bear in mind that I do not say immediate relief, but the aggregate. While we have no remedy which has ever pro-

* Read before the Hughes Medical Club, November 21, 1913.

duced the exact lesion of tabes, there are several which reproduce with a fair degree of exactness many of the concomitant symptoms. Probably the majority of the remedies used in times past have furnished the finest collection of failures that can be found anywhere. In my experience, however, there are a few remedies which given in small doses have proved themselves quite efficacious,—I had almost said satisfactory. For a general effect, and retarding the advance of incoördination the silver salts seem to best cover the ground, particularly the phosphate. One of my consultants has found that it is as effective in 1/100th grain doses as in 1/10th grain, and my present belief is that the third decimal more often repeated will be found to answer. If so, the remedy can be continued longer without danger of discoloration of the skin, or disturbance of the digestion. Thuja holds in check that peculiar vertigo which is manifest in the Romberg test. This remedy needs to be given for a long time, and when the medicine is interrupted the symptom will return. It is also useful in the other incoördinate symptoms. The magnesium salts are of benefit for the pains, and for the gastric crises, although silver phosphate has nearly as much influence over the latter symptom. Magnesium salts, particularly the sulphate, abate some of the pains, and if the pains in the legs cause cramp, as is sometimes the case, they are all the more adapted. It is probable that if the cramp symptom is very prominent the anterior columns are involved. Secale has given relief in a few cases which correspond to its drug symptoms, but this does not often occur in pure tabes. Mercury does not seem to be as useful as one would expect. It is possible that this is the result of the large and long continued doses of mercury given several years previously.

I will now call your attention to another trouble known as primary lateral sclerosis. I am not fully satisfied that there is such disease, I suspect that it is never primary, but is secondary to a previous unrecognized myelitis, and that the sclerosis is a result. Be this as it may, I have seen cases with all the ear-marks of the trouble sufficiently developed for diagnosis, arrested, and to all appearance cured. To be sure, they were taken as early as they could be diagnosed. In those instances where spasm and rigidity preponderate over symptoms of paresis, cuprum is decidedly indicated, and I have seen one cure result under the use of that remedy alone. You may think it was only a case of hypertonic muscular paralysis, but being tolerably familiar with that functional disturbance, I am fairly sure of my ground. In the provings of lathyrus sativus, as given in the "Cyclopedia of Drug Pathogenesy" we find that all the provings were poisonings from eating the vetch, and consequently gave very marked symptoms, although they were few. A very good picture is drawn of a primary attack of myelitis of

rather brief duration, but followed in most instances by a severe lateral sclerosis. In only one geographical region were there any sensory symptoms; and there is good reason to suspect that in that locality there grew a different species of vetch. In the animal cases degenerative changes were found in the cord. For several years I have been prescribing lathyrus in cases of lateral degeneration, and with what seems to me good results. If we could see these cases early enough, (which we never do) there is reason to believe small doses of strychnia, or nux vomica, might do much to abort them. The remedies mentioned are worth studying in epidemic poliomyelitis, which is just now exciting a great deal of interest; the cells of the anterior horns were found atrophied in the lathyrus poisonings. The picture of this drug also calls to mind the conditions in amyotrophic lateral sclerosis. In cases of myelitis I have seen sufficient encouragement with guaco and cannabis indica to continue the use of them. We all get cases of cerebral hemorrhage, and readily call to mind the initial shock, which is often in excess of the ultimate injury. A portion of this shock, at least, is in the nature of surgical shock, and is due to the traumatism, and in the majority of cases is severe. I have seen such good results follow the administration of arnica here that nothing can replace it as the initial remedy. The use of arnica is the result of its clinical symptoms. It may be asked if we are departing from Homœopathy, and adopting empiricism in making use of clinical symptoms. This accusation can hardly hold, because as a rule we require proving symptoms to validate the clinical ones. Again who can expect a proving to be pushed to the extent of causing a cerebral hemorrhage? Lethal symptoms are from accidental poisoning, and only rarely appear in our drug pathogenesy. Arnica has proved itself clinically useful in trauma, and its provings correspond with the constitutional symptoms of trauma, which after all is the important point. In the later symptoms of apoplexy we have a very good picture of opium, and sometimes belladonna. Still later, when the remains of the clot become organized, either the iodide of barium, or of potassium is useful. Of the two the barium salt would seem to demand the preference from its marked influence over the proliferation of connective tissue, as well as of neuroglia. Some of the most troublesome after-symptoms are the result of this overproduction, and subsequent contraction (scar tissue.) In the use of barium close attention should be paid to the condition of the heart, as the drug is capable of depressing the heart action. The number of cases of organic nervous diseases might be continued, and examples given from my records, but I am anxious to leave ample time for discussion, which is likely to be of more value than the original paper.

The second item of our perplexities is the so-called functional disorders or neuroses. Here we have a throng of complexities which are not the result of any lesion, *i. e.,* as far as we at present know; consequently the symptoms are extremely various, and varying. They are often complicated by other organic or constitutional affections. Again they may be mimetic, and imitate quite closely central lesions. We will hardly touch the matter of diagnosis, as it would extend this paper beyond your patient consideration. Homœopathic treatment is specially adapted to these cases, partly because it does not introduce various drug diseases to further complicate the situation. The great feat is to get the exact totality of *genuine* symptoms. The majority of the patients are so open to suggestion that they will furnish you any symptom you want, or that they think you want. It is here that we have to understand conditions and prescribe for them. Here more than elsewhere we must individualize the patient, rather than the sensations. Patients vary within certain limits, but sensations vary without limit in many of these sufferers. The general conditions can be classified, but it is useless to do this nosologically. A large percentage of this class have exalted tendon-reflexes, and with this goes an increased capacity for reflex pain. Now it would seem poor practice to still further stir up this reflex activity by giving large doses of strychnia as a tonic; correct the over active reflex irritability by the proper remedy, and nature will attend to the tonic part by way of the food.

I shall cite no drugs, for the variety is so great that they could only be properly treated in a special article upon drug pathogenesy. These patients are so open to suggestion that the criticism is often made that the result is from the mental influence of the physician and the hygienic rules established. This is to a great extent true. But what of it? If the physician has perfect confidence in his treatment, it is much easier to make the patient have confidence in him. If the doctor does not think he can help the case he had better keep out of it. The close study of drug symptoms tends to make the homœopathic physician capable of studying the patient,—not the disease, but the diseased person.

I cannot finish this paper without asking one important question. *Are we retrogressing?* On carefully comparing the spirit of today with that of fifty years ago in our profession, I must confess that it looks significantly that way. Is this due to ourselves, or to the changing character of our clients? I wish I could answer the question; but I cannot. The character of our patronage has certainly changed. The daily papers, and the monthly magazines are filled with well paid-for articles, and our patients read them, making their own interpretations. The physician is supposed to talk up—or down—, to this standard, and then is inclined to act in

accordance therewith, so that after a time it seems to get into his system. It is a question how much the various compound tablets, and mixtures, have to answer for. The general action is carefully explained by the man with a gripsack, and how it has all been worked out in various laboratories by highly paid specialists, upon various animals, thus saving the physician all the trouble of study and careful individualized comparison. Often to secure the exact remedy is concentrated hard work. I suspect that many a man will select the easier way. There is a strong temptation to short circuit the current and avoid exactness by a compound prescription. This is certainly going back to "old times." In my younger days an old school doctor showed me a prescription just written calling for some seven ingredients, saying, "there are shot enough so that some of them have got to hit." It certainly seems that the younger physicians are making the widest departure, and this opens up the question of our schools. Does the comparative preponderance of laboratory work, and instruction, take away from the sincere study of Homœopathy? It ought not, nor do I think it does, particularly if the teaching of the homœopathic principles and materia medica are kept up at an equal level; in fact, it ought to work just to the contrary, because the laboratory ought to throw valuable light upon symptoms which in old days were only dicta. This work ought to connect cause and effect in the mind of the student, and make plain that which otherwise would seem ridiculous. It is just a question of whether homœopathic teaching is a plus or a minus quantity. In the older times a large portion of our men were converts from the "old school" who changed from conviction, when they came to us they came over "horse, foot, and dragoons," and no ridicule, or adverse criticism checked their enthusiasm. They believed in themselves because they believed in the method which they practiced. It is doubtful if we find much of that type of enthusiasm manifested today. Those older practitioners did some wonderfully good work; good even from our advanced standpoint of pathological knowledge. The great problem before us is; how is this disturbance to be regulated, and remedied? I certainly cannot solve the question, and can only hope that in your discussion of the paper some solution may present itself.

In closing let me say that while there have been a few remedies mentioned, there are several others which would have been found to apply equally well, or even better, if the cases were individualized, *i. e.,* the patient and the symptoms. Often we find that a seldom used remedy applies when a more common one does not. This is one of the things which shows our foundation to be sound.

DRUG ACTION IN DISEASE.

By Alfred R. Perkins, M.D., Chicago.

Positive Facts. (a) Every derangement of functional activity, however slight, every abnormal condition of the tissues produces a chemical change in the blood. That is, a certain group of chemical molecules are formed in the blood and tissues. These chemical molecules are foreign to the normal system and are the direct result of an abnormal condition.

Another Fact. (b) Every cell, or leucocyte, contains within itself the power, or property, to resist injurious influences, or poisons. This is known as the resistance or vital force of the system. This inherent power to resist foreign chemical substances (toxins) may be impaired by many causes as poor food, poor air, congenital weakness, or from previous illness. Also the power to resist these abnormal conditions may be increased by proper temperate living, and by medicines which excite the cells to increase activity.

What is this power to resist abnormal conditions, upon which the susceptibility of the individual depends?

It is simply this (c) The chemical substance (toxins) in the blood, caused by abnormal conditions, excites the cell to produce within itself a chemical substance (anti-body) which combining with the injurious chemical substances, renders them inert. This is positively proven by experiments the world over. Example:

(d) A person becomes infected. The pathogenic bacteria produces blood changes, which excite the production of an anti-toxin, or anti-bodies, which are direct products of cell activity, the cell being capable of producing a chemical substance specific to the character of the infection. This production of the cell is the direct effect of nature's effort to overcome the changed condition of the blood, and the effort will be successful unless the vitality of the cell is impaired by previous abnormal conditions or unless the invading infection (or disease) is excessive in quantity and virulence. The chemical molecules excited to production within the cell are thrown off into the blood stream, where it forms a chemical combination with the abnormal chemical group, thus producing an inert chemical substance which in turn is eliminated from the system.

(e) It is a proven fact that for a cytotoxin, or anti substance, to be effective its production must have been excited by the toxin which it is later able to destroy.

Example. Diphtheria cytotoxin (anti-toxin) is a specific production of the cell excited by a specific toxin, and is specific only to the toxin which was the cause of its production.

Now think hard. Can a chemical substance, drug or medicine, which causes an abnormal chemical condition of the blood similar

to the abnormal chemical condition produced by a diphtheritic or other toxin excite the cell to produce the anti-substance or anti-bodies similar to that produced by the toxin? Recent experiments are proving that the answer is *Yes.*

This power of the living cell to produce a specific chemical substance which more or less readily combines with the invading, injurious chemical substance (toxins or other) to form a non-injurious or immunizing substance is proven beyond contention.

These injurious chemical substances are formed in the blood not alone by bacteria so far recognized (although future bacteriological experiments may prove that all diseases are due to chemical changes brought about by micro-organisms) but are formed by improper living and the absorption or ingestion of poisonous substances. It is extremely probable that all functional diseases (and possibly organic except those having a mechanical origin) may be the direct result of the presence of micro-organisms in the system. That the human body is the habitat of myriads of such micro-organisms is a proven fact. These do not become pathogenic or disease-producing except under favorable conditions, to wit, the lowering of the vital resistance of the cell, or, in other words, the decrease in the power of the cell to produce the anti-substance, which condition increases the susceptibility of the host. Also the so-called saprophytic bacteria by introduction into the body, in large numbers a few (the survival of the fittest) may become a habitat, undergoing biological and morphological changes, until it becomes pathogenic, not to the person in whom it is living (for the cells of that person have already developed the chemical substance necessary to render it inert) but if introduced into another person whose system has not acquired immunity through long association with the germ.

All I have written in the foregoing are facts, undeniable facts, proven in every bacteriological laboratory the world over.

Now let us consider another fact as conclusively proven.

It is known without a shadow of a doubt that a person may accustom his system to a certain drug so that he may take enormous doses without fatal result. By beginning with small doses, gradually increasing the size, the system will finally tolerate a dose which would be fatal to persons not "immune."

The morphine fiend, the cocaine user, the tobacco user, and many others, are monuments to the truth of the ability of the system to develop within its cells a resistance to the toxic effect of the drug. Arsenic used by the Alpine guides is another instance.

It is a common, everyday occurrence in the busy practitioner's life to find that some patient who has necessarily continued a drug for some time becomes "immune" to the amount given, so that to get an effect of the drug, the dose must be increased (if possible) if not,

another drug, having a nearly similar action, substituted in its place. Even in the use of the substitute we find that we must give a larger dose than would ordinarily be given, because "immunity" to the former drug has rendered the person partially "immune" to one of similar action. These cases are seen in the continued use of cathartics, morphine, strychnia, digitalis, kali iodide, and mercury. This proves that a person "immune" to large doses of a certain drug is also partially "immune" (to a much less degree) to drugs or substances of a different chemical composition, but similar in their effect upon the system. This is true (another proven fact) in bacterial cyto-toxins, (anti-toxins.)

H. It is specific only for one specific bacterial toxin, but it retards the growth of, and renders less virulent, the toxin of all bacteria different from the one which caused the production of the cytotoxin but similar to it in biological characteristics.

Example K. The anti-typhoid serum is specific only for the bacillus typhosus, but retards the growth of and decreases the virulence of the bacillus coli group, the bacillus paratyphosus, and others of the intestinal tract. This has been proven by every observer. The students in all medical schools prove it in every-day tests. Thus a person immune to the bacillus typhosus is partially immune to other bacilli having similar characteristics.

If you desire to render a person immune to comparatively large doses of a certain poison (in other words increase an individual's resistance to the toxic effects of a poison) or drug, or chemical substance or toxin, you could do so, to a certain extent, by "immunizing" him to a drug having a marked similar effect upon the system.

I. For experiment (a) Gradually give an animal increasing doses of morphine until he can tolerate many times a fatal dose.

(b) Determine the fatal dose of codeine or heroin for an animal of like weight and character. To find the fatal dose use only subcutaneously.

(c) Have your animal "immunized" to morphia, injected with a dose slightly larger than the fatal amount of codeine, heroin, or any other drug similar to morphine in its totality of symptoms. Note the result.

II. Prepare animal as in Experiment I. (a) and inject twice the fatal dose, or if your animal is properly "immunized" to large doses of morphia inject three or even five times the fatal dose. Your animal does not die. (a) Requires from two to four months; even longer would show greater proof.

One drug may excite the cell to the production of an anti-substance which decreases the toxic virulence of other drugs, which produce similar effects upon the system. How do we know the effects drugs produce upon the system since chemical analysis does

not show the changes in the blood? There is but one way, the totality of phenomena or symptoms which follow the introduction of the drug, or poison, or toxin into the system.

Thus several drugs a, b, c, produce similar effects upon the human organism. In the totality of effects produced (symptoms, we call them) (b) may more closely resemble (a) than (c). Neither (b) nor (c) would be a specific antidote to poisonous effects of (a), although both would decrease the severity of the effects of (a), and (b) more closely resembling (a) would be a more effective antidote than (c).

A person, or animal "immunized" to (a) would produce a serum specific to (a).

III. Experiment. "Immunize" an animal to the effects of morphine poisoning as in (a) experiment I. then prepare a serum from its blood. Inject into another animal of like weight etc., a fatal dose of morphia, closely followed by a dose of the serum from the "immunized" animal, and note results. (Note. Be sure to use sufficient amount of serum. The more you use the better and more striking the result.)

Experiment IV. "Immunize" an animal to drug (b). Inject into another animal a fatal dose of (a) followed at once by serum "immune" to (b).

The action or poisonous effects of (a) will be inhibited, the symptoms less severe, than in an animal not treated with (b) serum.

The results of these experiments prove that the continued use of a drug—poison or toxin,—develops within the system a specific, chemical substance, which combines with the specific, foreign, injurious chemical substance, rendering it inert. Also this chemical product of the cell, incited by a drug is inhibitory to the action of all other drugs which produce similar effects or symptoms. The closer the totality of effects resemble each other, the more inhibitory is the action.

When this truth becomes widely known all City Boards of Health and private practitioners will carry an anti-morphine serum and an anti-strychnine serum, made from the horse, to be used in accidental or suicidal cases of morphine or strychnia poisoning, a serum for each drug, each a specific for the drug which originally produced the anti-product of the cell. A few years after the advent of the "drug serum" another change will take place as the result of the following experiment.

Experiment V. Take two drugs similar in action (a) and (b). Of (a) make a 1-10,000 solution with sterilized water q. s. one ounce. Inject into an animal a fatal dose of (b), thirty minutes after having injected the ounce of 1-10,000 of (a).

Experiment VI. Same as V, using fresh animal and twice the fatal dose.

When the results of experiments V and VI become generally known, then the horse will possibly be forgotten. As I have said in (a) every disease or abnormal condition of the human organism produces chemical changes in the blood. Chemistry is not sufficiently developed to enable us to isolate the group of chemical molecules produced by each individual disease or derangement of functional activity, neither can it isolate the group of molecules produced by drugs, poisons, etc. The fact that poisons may be found unaltered in the blood and tissues in case of poisonings does not detract from the truth that the cells do produce a chemical substance which unites with the foreign poison, rendering it inert.

The fact that the poison was taken in a large quantity so overwhelmed the cells, as to render them incapable to produce the neutralizing substance.

The same occurs in the invasion of a decidedly virulent type of infection. Death results. The bacteria may be found in the blood and tissues unchecked in growth and activity, even in cases where the opsonic index was above normal; that is, the power to produce an antitoxin is greater than the average.

Returning to the chemical changes within the system produced by abnormal conditions, we find certain diseases cause a certain set of symptoms, that is, the chemical substance generated by the disease produces certain effects. We do not, at present, know the exact composition of this chemical substance, but we do know it has certain effects upon the body, causing more or less pronounced symptoms, their severity depending upon the susceptibility of the individual. Take the totality of symptoms found in any disease, (x) for instance. These symptoms are the effect of the toxins of (x). By comparing them with the effects produced by drugs or poisons, one is struck by the great similarity of effects between the chemical substance or poison caused by the disease (x) and a certain chemical poison or drug (y). That is, if two persons, one suffering from the disease (x) and the other poisoned by the drug (y) were lying side by side, we could hardly tell which had (x) and which (y).

Is it too difficult to realize that the chemical substances acting in both cases are extremely similar, if not of the same composition?

I do not believe that the poison produced by the disease (x) is identical with the poison (y) but I do believe that they, the toxins of (x) and the drug (y), are of a similar group, having very similar chemical composition, both exciting the production of the same chemical substance (z) within the cell. (z) is the anti-body or cytotoxin and is capable of being produced by all cells in greater

or less amounts, depending upon the cell's condition,—that is, upon the power to resist foreign invasion.

(z) Is cytotoxin-production of the cell. (I do not like the names *anti*-body, *anti*-toxin etc., it carries one so far from *similia.*)

Cytotoxin is not an *anti* to anything. It is the *affinity* of all injurious chemical substances. It readily combines with the toxin or poison, causing its production.

L. Cytotoxin therefore has a chemical composition determined by its exciting cause, identical in every instance where the causes are identical, similar where the exciting causes are similar, or extremely different where the exciting causes are different. In the first, a specific, the second a similar, the third, a contrary.

Returning to the disease (x) drug (y) and cytotoxin (z) and (m) toxoid production of the union of "x" and "z" or "y" and "z" thus $\left.\begin{matrix} x+z=m \\ y+z=m \end{matrix}\right\}$ toxoids.

(m) Toxoid, is an inert, non-injurious chemical substance eliminated by the natural channels. The chemical substance produced by the disease (x) must be similar to (y) since both produce the same effect upon the person; therefore the cytotoxin (z) excited by (x) is similar, if not identical to that produced by (y). They are Similars (see paragraph (l) and (z) being similar in both the (x) and (y) readily combines with either of the poisons of (x) or (y). Thus one may be substituted for the other $\left.\begin{matrix} x \\ \text{or} \\ y \end{matrix}\right\} + z = m.$

Supposing in the disease (x) we consider another drug (w) exactly opposite in its effect upon the system, that is, the symptoms following its ingestion were opposite to those produced by the poisons in the system of the person diseased by (x). Referring to paragraph L again, you see the cytotoxin (z) produced by (w) would be opposite or contrary to that produced by (x), therefore, although z (produced by w) would combine with w—and zx (produced by x) would combine with x,—zw would not combine with x being opposite, contraries. If such combination should take place either a gas or precipitate with heat, or all three, would result. In this case zw would act as a poison, as can be proven in using a diphtheria anti-toxin upon a typhoid patient.

The above is amply proven by bacteriological experts. See paragraphs E, H and K, which prove that the anti-body, antitoxin, cytotoxin (z) to be effective, that is, to be able to combine with the invading chemical substance, must have been excited by, or its production caused by, a chemical substance (toxin) identical to, or similar to, the one of which it is later able to destroy. If identical it is a specific (paragraph L);—if similar it is a similar, etc.

Also it is well proven that the toxins of certain bacteria, and certain bacteria themselves, increase the growth of and virulence of the

toxins of certain other bacteria. This is often the case in "malignant" measles, "black" diphtheria, etc., where we have a mixed infection. They are contraries, the anti-bodies or cytotoxin of each not only being unable to combine with the other, but actually aiding in the destructive powers of the original toxins.

Take again the poisons excited by the disease (x) and the drug (y)—(Similars). The person becomes ill with (x). You are called in the next day. At the time of your visit all activity has already produced a certain amount of cytotoxin (z). You give the drug (y). Now what is the result? The cell already producing the cytotoxin finds itself called upon to produce a double quantity, or exactly speaking, another cytotoxin to combat (y). (x) plus (y) being similars, the cytotoxin in each case is similar, therefore the cell simply increases its production of the same substance, or a very similar substance. That produced by the exciting influence of (y) combines with the toxins (products of x) and thus (x) being acted upon, or compelled to combine with two identical or similar cytotoxins, finds itself defeated, changed into an inert substance, toxoid, and eliminated from the body.

Supposing we had used the drug (w) instead of (y). (w) is the opposite to (x).

The cell is manfully trying to produce a specific cytotoxin (anti-body) to combine with the poisonous substances produced by (x). Now it finds itself called upon to also produce an entirely different cytotoxin. Thus we have two different chemical substances in each cell trying to outstrip the other, with the consequence that both die of exhaustion, that is, neutralize each other or form a substance which, if it does not increase the destructive power of (x) at least leaves it in sole control of the patient's outcome. The *fact* that certain drugs do increase the disease, would indicate that the presence of their cytotoxins (anti-bodies) does have unfavorable influence upon the course of the disease, and may oftentimes be responsible for a fatal termination.

In administering drugs to the sick, if you cannot find the exact similar which would be a specific you can at least find a "rear" similar, which would be better than none, since it would be more or less effective in producing an anti-body or cytotoxin, similar to that in the disease.—See paragraphs H and K.

Summary.

1. Every pathogenic bacterium, disease, or drug, produces within the blood a foreign toxic element, sanguinotoxin, or toxin.

2. Every bacterium produces a cytotoxin, varying with the variable character, or virulence of the bacterium, and varying resistence or susceptibility of the host.

3. Every drug or medicine produces a cytotoxin varying with

variety of drug, causing its production, and the varying resistance or susceptibility of the person to whom it is administered.

4. Sanguinotoxin, from whatever source it is derived, excites the production of cytotoxin (antitoxin).

5. The cytotoxin directly varies with the various phases of it producing cause.

6. The character of the sauguinotoxin is known and determined by the effect it produces upon a healthy individual.

7. All sanguinotoxins, of an identical or similar nature, excite the formation of cytotoxins of an identical or similar character and activity.

8. Cytotoxin is a specific only for that sanguinotoxin (toxin) which was the direct cause of its production, although decreasing the virulence of all sanguinotoxins produced by very similar agents.

9. A cytotoxin produced within the system, or introduced into the system, causes immunity to, if existing before the advent of the disease, or is curative to, if administered after the disease is ushered in that disease which would produce a sanguinotoxin (toxin) identical to the sanguinotoxin which was the original source of the cytotoxin in question.

10. A specific cytotoxin and a specific sanguinotoxin are of necessity of an extremely similar nature. Both are of a similar chemical composition; otherwise, according to the well-known and proven chemical law, their union or combination could not take place without the production of a gas, a precipitate, or heat, or all three.

11. Any drug or medicine producing a cytotoxin identical or similar to the cytotoxin produced in a disease, would be a specific, if identical to, or inhibiting (curative), if similar to that disease.

12. Statements 2 and 3 prove that the curative drug must depend upon each individual case.

In conclusion let me urge every homœopathic medical school to create a new chair entitled "Experimental Drug Action in Health and Disease." Let the students in the laboratory render an animal immune to a certain drug, and prove its partial immunity to drugs having a similar action. Explain that this immunity is due to the development of a specific cytotoxin produced by the exciting influence of the drug.

Then in the third and fourth years explain and demonstrate that a sick person is suffering from the effects of a specific chemical poison, (sanguinotoxin) which is causing the production of a cytotoxin, and whatever will produce a cytotoxin identical to or similar to the cytotoxin already being formed in the blood, will cure the disease, and that a certain amount of this cytotoxin is necessary in

order to combine with all sanguinotoxin being internally formed by the abnormal condition.

Note. Since writing the above I was, to my great pleasure and profit, able to hear Dr. Mellon tell of experiments being performed in Ann Arbor Medical School. An outline is as follows:

Volunteer students were administered Baptisia. Later a test of the agglutinating powers of the blood of these students was tested upon the bacillus typhosus, and in every case the agglutinating power was increased although to a variable degree.

A certain other peculiarity was brought out in the discussion which followed, namely, that the agglutinating power of the blood was less during the third, and still less, during the fourth week.

Does not this bear a striking resemblance to the clinical course of typhoid? Other experiments were made with Veratrum viride upon the pneumococcus. There is no limit to the possible good which will follow like experiments in *all* homœopathic schools. I sincerely hope other schools will take up the subject. Homœopaths the world over should feel indebted to Dr. Mellon. He used a "stock" culture of typhoid, which may or may not have originally come from a patient showing Baptisia symptoms. At any rate the bacilli had been cultivated outside the human body, and naturally would present slightly changed characteristics. The effect of the Baptisia was shown, although undoubtedly much less so than would have been the case had the bacilli been freshly taken from a patient showing Baptisia symptoms, as you can readily understand by referring to statements II and III under summaries.

In such experiments I would suggest using the freshly taken bacilli, and a drug selected by the law of similars, also proving *all* drugs showing similar symptoms.

It is extremely probable that within a very few months the exact "similar" may be determined to a certainty; and it would be nearly specific. Experiments along this line are as follows:—

Find the agglutinating power of the patient's blood serum upon a stock culture (in typhoid the similar to the Widal test). Note any special characteristics. Then to different portions (a very small quantity is sufficient,—one or two drops) of the patient's blood add a 1-5000 aqueous solution (1-10 the quantity of the serum) of the drugs which suggest themselves.

Find the agglutinating power of the blood thus medicated. The drug solution showing the greatest increase (over that of the untreated patients' blood) of agglutinating power would be the one to select, since it produces a cytotoxin favorable to unite with the toxin of the bacteria. The test would be much more valuable if made with a culture of the freshly taken bacteria from the patient.

This test can also be made by finding the opsonic index (phago-

cytic power) of the patient's blood, and followed as in the agglutinating tests.

Blood of patients suffering from non-bacterial disease could be tested in a like manner by finding their actions, opsonic and agglutinating, toward a certain bacterium (any one in stock) using the same bacterium in each test.

Hahnemann's truth in modern phraseology.

A drug to be curative in a given disease must produce within the system an anti-toxin (cytotoxin), similar, if not identical to the antitoxin produced by the disease. If identical, it is a specific, if similar, it is curative in direct proportion to its similarity.

LICHEN URTICATUS.

Its Manifestations and Treatment With Appended Descriptive Homœopathic Remedies.*

By Ralph Bernstein, M.D., Philadelphia, Pa.
Clinical Professor of Dermatology, Hahnemann Medical College, Philadelphia, Pa., Consulting Dermatologist to Various Hospitals, Institutions, Etc., Etc.

Lichen Urticatus, or better yet—Urticaria Papulosa Chronica—of the Germans, which it really is, has clinical manifestations which are not unlike those of lichen and quite similar in many respects to those of papular urticaria.

It is decidedly a disease of early infancy, but may, however, appear in later child life. Improper and over-feeding, with resultant gastro-intestinal disturbances, seem to play an important role as its causal factor.

By many lichen urticatus is presumed to really be prurigo simplex; others contending that lichen urticatus does not become prurigo until after the third year.

The onset of lichen urticatus is acute, and may be simultaneous with the appearance of a tooth, which has given it the name of "tooth rash," but with which statement the writer does not agree.

The lesions consist of urticarial manifestations which are of the papular type, varying in size from a pin head to that of a small pea. The lesions may last for a few days and then disappear, only to again return.

Minute vesicular lesions may be co-associated in rare cases. The wheal or urticarial manifestation itself may at times be surmounted with a decidedly firm papule, which may last for a week or two.

While the papular lesions remain there are intermittent outbreaks of urticarial lesions. Itching is intense, so that the tops

* Read before the Southern Homœopathic Association at Atlanta, Georgia, November, 1913.

of the lesions soon become excoriated by scratching, leaving a small blood crust surmounting the lesion. Occasionally brownish stains remain.

The sites of predilection are upon the extensor surfaces of the upper limbs, the trunk next being affected, and finally the lower limbs.

The eruption in its later stages is not unlike that of scabies or the common itch, for which it is mistaken by many, especially when the eruption has become generalized.

It is important that the diagnosis should be correctly made from scabies because the latter demands a parasiticide for its eradication, whereas if used upon lichen urticatus it would be a decided irritant, and certainly would rather aggravate the condition than relieve it.

Scabies has its peculiar sites of predilection, namely, in between the fingers, the flexures of the wrists and elbows, axillary folds, penis, etc., which is not so of lichen urticatus.

Scabies has its itching "worse at night," whereas in lichen urticatus it is constant. Scabies shows burrows and the presence of the itch mite, which is not so in lichen urticatus.

Lichen urticatus shows the ever present wheal, which is not so of scabies unless it happened to be a co-associated manifestation.

Scabies would readily respond to local treatment directed for the same, which would not be so of lichen urticatus, but, quite to the contrary, would make it decidedly worse.

Lichen planus must certainly be diagnosed from lichen urticatus because again the topical treatment is exactly opposite. Lichen planus would demand local stimulation, whereas lichen urticatus demands local soothing.

The lesions in lichen planus are flat, angular and shiny, and perhaps surmounted with minute scales. The lesions may be umbilicated and have a purplish-red hue. While it is true in lichen urticatus the lesions somewhat simulate lichen planus, they are not umbilicated, they do not have that decided angularity; but they do become somewhat flattened and somewhat shiny because of constant scratching and irritation.

Lichen planus again prefers the flexor surfaces, whereas lichen urticatus prefers the extensor surfaces.

A diagnosis from simple urticaria is not so important from the standpoint of either local or internal treatment, especially from the homœopathic view, not so important from the standpoint of local treatment because lichen urticatus and urticaria both demand soothing treatment; and surely when it comes to picking the homœopathically indicated remedy it makes but little difference what

the diagnosis may be, because they all have their peculiar characteristics, which will be taken up under a consideration of the indicated remedy.

Locally, calamine lotion has been a very good friend, indeed; to be sopped on four or five times a day, or as often as is necessary to control the intense pruritus; made up as follows:—one drachm each of pulv. calamine, zinc oxide, boric acid and glycerine; lime water q. s. to make eight fluid ounces, adding one-half to one per cent of phenol, depending upon the amount of pruritus present.

Regulate the diet; combat constipation, if present; have the little patient drink copiously of soft water (boiled or distilled), which will assist materially in getting rid of many of the intestinal toxines. Then compare the following remedies, because therein lies the secret of success in combatting lichen urticatus. Physiological methods of treating this disease have always resulted in failure. Sub-physiological or homœopathic methors of precedure have always succeeded. If they have failed, it was because the indicated remedy was not found. Therefore, seek; here are the more commonly indicated remedies.

ACONITUM NAPELLUS—6x—30x.

Lesions.—Miliary vesicular. Scales are absent.

Locations.—Nape of neck (usually), face, hands, ears and temples in acute conditions, attended with a hot skin.

Sensations.—Numbness, stinging, pricking, burning, tingling, biting, itching, tearing, crawling and drawing.

Worse.—At night, on left side, wet, exposure, and in women and children.

Better.—Open air.

ANTIMONIUM TARTARICUM—3x—6x

Lesions.—Papules, pustules or vesicles surrounded by a red areola, the pustular element predominating.

Locations.—Chest, arms, occiput, or mucous membranes.

Sensations.—Intense itching.

Worse.—Evening, lying down, damp, cold weather.

Better.—Sitting erect.

Associated Conditions.—Patient is weak, debilitated, irritable, sleepless, nauseated, and there is bronchial or pulmonary trouble.

ANTIPYRINE—2x—6x

Lesions.—Erythemato-papular. Oedema is, as a rule, an associated symptom.

Locations.—Abdomen, chest, back, or on the extremities, the extensor surfaces of which seem to have the more profuse eruptions.

Sensations.—Intense itching.

APIS MELLIFICA—3x—12x—30x.

Lesions.—Erythematous or erythemato-vesicular. The condition is in the acute stage and is accompanied by puffiness of the affected parts and œdematous swellings which are pale red.

Locations.—Face, head, hands and extremities.

Sensations.—Intense itching, burning, stinging, smarting, pricking.

Worse.—From heat, touch, pressure, in later afternoon, after sleep.

Better.—Open air, cold bathing and when uncovered.

Associated Conditions.—Renal trouble, weakness, a stupid feeling, and marked feverishness with absence of thirst is very characteristic.

ARNICA MONTANA—1x—30x.

Lesions.—Erythemato-vesicular or papulo-vesicular. Symmetrical arrangement of the lesions is very characteristic, and there may be some œdema and a feeling of soreness of the skin, which is inflamed and has a bruised appearance.

Locations.—Extremities—the legs, feet and ankles in particular; and on the scrotum and other parts of the genitals.

Sensations.—Pain, drawing, itching, burning, pricking and cutting.

Worse.—Evening and night, touch, open air, sweating, damp, cold.

Better.—Lying with head low.

ARSENICUM ALBUM—3x—12x.

Lesions.—Squamous types with a fine bran-like desquamation. Associated may be lesions pustular or vesicular in type. There is a tendency to crust formation. The remedy is more often indicated in chronic than in acute conditions.

Locations.—Primary lesions—face, ears, and scalp. Associated lesions—back, genitals, and arms, particularly on the left hand.

Sensations.—Intense burning, itching, creeping, pricking and soreness.

Worse.—After midnight (1-3 A.M.), in the evening, cold, open air.

Better.—Warmth, warm application, lying with head elevated.

Associated Conditions.—Great thirst, drinking little at a time, dry skin, great anxiety, nervousness and physical depression and anemic states.

BRYONIA—6x.

Lesions.—Papules or vesicles, with insidious onset.

Locations.—Back and the flexor surfaces of the joints, usually, but may be general. The scalp is also an important site.

Sensations.—Soreness, aching, burning, itching, smarting, drawing and stitching.

CARBO VEGETABILIS—3x—6x.

Lesions.—Vesicles, papules and pustules.

Locations. Chiefly on the legs.

Sensations.—Itching, burning, soreness, tension and tingling.

Worse.—Morning, wet weather, warmth, eating.

Better.—Cold and fanning.

Associated Conditions.—Tendency of the condition to persist; flatulency and associated gastric troubles; aversion for simple foods, and blood changes in old people.

COCCULUS INDICUS—1x—3x.

Lesions.—Macular, papular and pustular.

Locations.—Region of the glands usually; about the neck, chest, shoulders and inner portion of the thighs.

Sensations.—Itching, burning, crawling, although not of importance.

Worse.—After exertion, eating, drinking, and smoking. Patient cannot tolerate exposure to changes in temperature and open air.

Associated Conditions—May be spasmodic gastric disturbance, vertigo, and various nervous conditions typical of the drug.

FAGOPYRUM ESCULENTUM—3x—6x.

Lesions.—Erythemato-papular or papular.

Locations.—Knees, elbows, hairy parts and mucous membranes.

Sensations.—Intense itching and pricking.

Worse.—Touching, scratching, at night in bed.

Better.—Open air.

Associated Conditions.—Violent itching of the skin and mucous membranes are good indications for this remedy.

HEPAR SULPH.—3x—6x—12x.

Lesions.—Papules becoming papulo-pustular by secondary infection with pus organisms, with a pronounced tendency to suppuration and often a fissure and crust formation. The lesions have a sero-pus exudate which is of a very fetid and foul character; bleed very easily from the slightest irritation, and likewise are infected very rapidly.

Locations.—Scalp, face, ears, chest, thighs, neck, shoulders and genitals.

Sensations.—Burning, itching (mild), throbbing, tickling, stinging and pulsation.

Worse.—At night, in the morning, cold, exercise and pressure.

Better.—Open air, damp weather, warmth and rest.

Associated Conditions.—The skin is unhealthy with a decided

tendency to suppurate, dirty and very sensitive, and of a yellowish color. The patients are usually those of a lymphatic type with a tendency to glandular enlargement and to pulmonic troubles. The lesions spread by the formation of small papules around the site of the old lesion. ("In chronic and recurring urticarias, as well as in vasomotor disturbances associated with hypertrophies of the skin, to each Hepar Sulph. 3x triturated may be looked upon almost as a specific."—Raue), which is verified by the author's own clinical experience. One of our best remedies in the disease under consideration.

HYPERICUM—1x—3x.

Lesions.—Papules and at times vesicles, with a sero-pus exudate and crust formation of a greenish-yellow color. The skin is often dry and rough, and the lesions are of an intense red color. The eruption seems to follow along the course of the nerves of the skin.

Location.—Face and hands.

Sensations.—Intense itching and smarting.

Worse.—Evening and rubbing.

Better.—Pressure.

Associated Conditions.—May be symptoms of a neurotic type; chest and urinary troubles.

PSORINUM—6x—12x—30x.

Lesions.—Vesicles, pustules and crusts are the predominant types, the vesicles being round, scaly areas as a rule.

PULSATILLA—3x—6x.

Lesions.—Erythematous, papular, vesicular or pustular.

Locations. Neck, groins, shoulder, chest and face; but may be located anywhere on the body.

Sensations.—Itching, burning, sticking, throbbing, smarting and stinging.

Worse.—Evening, warmth, fatty foods, sweat, menses, pregnancy, scratching, motion, after mercury, quinine, sulphur and chamomilla.

Better.—Open air, cold, washing, lying on back.

Associated Conditions.—May be some catarrhal, female, sexual or mental symptoms and other characteristic symptoms of the remedy. The patients are usually children, women and young people. The characteristic changeableness of the remedy is much in evidence in the skin manifestations which tend to go from one place to another. The condition usually runs an acute or subacute course.

RHUS TOXICODENDRON—6x—30x.

Lesions.—Vesicular, erythematous, papular, pustular and squamous. Tendency to crust formation of a thick character

having a putrid and excoriating exudate. There is tendency for the vesicles to become pustular. The lesions are usually surrounded by a red areola. The eruption may be dry or moist according to type of lesion predominating. The crusts are of brownish or yellowish color. There is some infiltration of the skin. The vesicles are of small size and tend to scale very readily.

Locations.—Inner sides of thighs, the face, genitals, eyelids, arms, or any place on the body. The hairy parts are very often affected when loss of hair is usually associated.

Sensations.—Itching, burning, smarting, stinging, stitching, tingling and tension.

Worse.—Morning, after bath in warm water, at night, damp, cold weather, after scratching.

Better.—Temporarily from hot bathing, scratching, sweating, dry weather, local cold, pressure and motion.

Associated Conditions.—May be restlessness, some rheumatic affection, œdematous, inflammatory, glandular enlargement, debilitated states, or some nervous condition. The condition runs an acute course.

SULPHUR—6x—12x—30x.

Lesions.—Vesicular, papulo-vesicular, pustulo-vesicular or squamous, but may be any type. Papular lesions generalized over the body are often benefited. Lesions tend to crack upon scratching, and give off a thick, offensive pussy exudate which forms thick yellow crusts. The lesions bleed very easily.

Locations.—Occiput, along the hair border extending from ear to ear; chin, toes, genitals, legs, flexures of the extremities, particularly groins and nates.

Sensations.—Itching with or without eruption, sometimes decidedly severe; burning, tickling, tearing, stitching and smarting sensations.

Worse.—From warmth, in bed, washing, sweating, wet, alcoholic beverages.

Better.—From scratching, walking, during the day and in the open air.

Associated Conditions.—Skin is dirty, greasy, dry and harsh. May have any co-associated symptom. Irritable, lean, mentally depressed, excessive desire for food, aversion to water, and the typical patients are good guides to the indications for this remedy. Chronicity.

URTICA URENS—3x.

Lesions.—Œdematous, circumscribed nodules of shiny bluish-redness; also minute vesicles, at times confluent.

Locations.—Not important.

Sensations.—Itching, heat, formication and numbness.

THE HOMŒOPATHIC TREATMENT OF TYPHOID FEVER.

By John Hutchinson, M.D., New York, N.Y.

In typhoid fever alone the success of the homœopathic remedy is enough to establish its fundamental worth. Its worth to-day is unique. It is unsurpassed. The symptoms of a patient of any age and in any stage of the malady reflect the proving of some proven remedy, and that remedy is not necessarily confined to the hundred or less that are oftenest employed in enteric fever; for, as we all know by experience, the indicated remedy may be any one, other than these, out of our extensive pharmacopœia, provided only the likeness exist.

Undoubtedly many cases seen early are cured in their incipiency, even before diagnosis is possible. Admitting that this cannot be proved, for some of our laboratory tests are tardy in their recognition, certain it is that typhoid, unlike appendicitis, is less frequently reported than formerly, and many of the cases that develop show a lower degree of severity than formerly.

The typhoid mortality under genuine Homœopathy is very small compared with other medical regimen. Statistics have always shown this, and wherever collected at present they continue to show it. There is perhaps no derangement that exhibits in its response more eloquently the difference in a prescription for the patient and one for his malady or the hypotheses concerning it. This may be because with all the theories of physiological and pathological processes against it, Homœopathy does not fix a basis of explanation as to How a given function persists. Chemical and biological relationships, now so much exploited, throw no clear light for therapy to offset the insistence of exact symptomatology. And of late we hear from quarters least expected that close observation of the general clinical symptoms obviates an estimation of the opsonic index.

Speculation is diverted from the pathology of Peyer's patches and their hospitality to the bacillus of Eberth when we reflect that here, just as disturbed function will alter structure, along with the invasion of other forms of life, so physiological behavior by wire from the central station restores and conserves structure. And typhoid is now pronounced "an acute bacteræmia plus toxæmia, often fulminating in character, and not a localized infection; hence brilliant results from the vaccine treatment for the cure of this disease are scarcely to be expected." It is also true that "there is an unfortunate lack of agreement as to the proper dose in prophylactic treatment, the variation being from five (5) to 50 million, according to Wright; from 25 to 50 million according to Anders; from 300 to 400 million according to Leishman," to say nothing of the controversies over comparative merits of living and dead bacilli.

Can we wonder that one of our good American Presidents, when confronted with some glowing statistics from the army expressed himself as being astounded at their excellence, which, as he said, he could not have believed at all, only that they came through the War office, and must be, therefore, further evidence of the tremendous strides constantly being made by medical science!

It is important to recognize what is being offered as best for the control of any disease. Homœopathy declares for its own only so long as it possesses the means for superior therapy. We accept the diagnostic position of medicine, we admit disease entity. They are good enough as far as they go, but it is not going far enough. Homœopathy is definitely concerned with the sick man. His own peculiar case is to be met. Theories and bacterial cultures and hypodermic needles do not meet it. They do not reach its need. The suitable prescription is not based on the diagnosis *per se,* and there is much more in the patient that has *de facto* bearing on cure than is expressed by the bacterial content of his disease. For this reason our therapy takes account of patients instead of diseases. It is the patient and his peculiar state that decides the remedy.

It is not every one of us who can take the cheerful view of the writer who declares:—

"Hypodermic injections are greatly preferable to drug administration by mouth, for they impress the patient very strongly with the idea that we are doing something for him, and this impression is materially strengthened by the bill he gets on the first of the month."

I think you will agree with me that the aspect and consequences of hyperdermatic practice are far more reprehensible than even this suggests.

I think we all recognize that in prescribing it is important, yes, supremely important to observe a serious case closely from hour to hour, and until its symptomatology is plainly discovered, until it is fully grasped. The similar remedy cannot be selected without a knowledge of the peculiar features of the disease and their peculiar effect on the patient. A remedy indicated by the law of cure, even if of lower dynamic force than the simillimum, is possibly as useful in typhoid as in any other illness where the similar remedy leads, but there is great need always to guard against the unnecessary strain of a remedy that is not indicated. If Homœopathy maintains its own by reason of any one fact more than another it is in its care not to impose unwarranted drug influence on the system.

In respect to the correct application of the similar remedy it may and should be said that the benefits are not in the future more than in the present. We have not repeatedly to herald the announcement that we are on the verge of a great discovery soon to

emancipate and revolutionize medicine. Hahnemann made the discovery long ago. It was investigated and confirmed as an exact fact over a period of decades. It is proved again and again every day of our lives. The truth of the homœopathic prescription is established, its appropriateness is in every sense admirable.

The monstrous absurdity of cold bathing to reduce the fever of typhoid has no relation to the rationale of the homœopathic remedy. What state of mind could lead the prescriber to suppose that fever is the thing to be suppressed? Where the cold bath has been forced upon patients the mortality has been marked, and it is reported that the mental powers have failed immediately. Good nursing need not include these radical measures that subvert Homœopathy to foreign influences.

The diet in typhoid must be considered by the therapist, to whom it may appeal as a question of individualization. It may be well determined by the whole examination of the patient, including his appetite and preferences as well as digestive tolerance. The free-diet, and milk-diet advocates present good arguments, but statistics disprove both. It would seem that an exclusive diet of either milk or water or solid food for all cases would be a huge blunder. Strict limitation to any one article of diet appears not to be either rational or necessary. Here as elsewhere "intelligent study of hunger sensations may lead to better knowledge of digestive conditions." It is foolish to repudiate the existance of certain guides. Let us except phenomena and respect the prayers of the organism. It is marvelously equipped with all means of expression, and we have only to learn its language. Why not pay honest heed to the call of the system instead of instituting arbitrary theories as to the demands of its disease?

The physician must constantly specialize. The spirit of Homœopathy is one of specialization, ending in scientific cure. The fact that our patient has typhoid is not so much a part of the specialty as that his remitting type of fever is accompanied by a certain languor at a certain time, or that his thirst is of a peculiar character, or that he is intolerant of certain things, or that his sleep is marked by periods of strange restlessness, or that his delirium is of a certain type with certain concomitants. These with possibly numerous other features of his case, more or less prominent, point to the study of particular remedies.

For this reason we do not begin our work in the laboratory with mice in order to transfer the results directly to our human patient. All our knowledge of what constitutes cure forbids this as preposterous. For our knowledge of curative treatment begins with the human patient. The information derived from experimentation on lower animals stops far short of cure.

It has been the privilege of many of us, in one sense, and our misfortune in another, to witness the treatment of physiological therapy, so-called, of vaccine therapy, and of numerous other methods indorsed by the laboratory. I can affirm that never have I been permitted to discern the benefit hoped for and promised as sure by the pathologist. Should we expect to mold at will that bioplasm which is already under higher and essentially vital control?

The origin of typhoid infection being so often in doubt, our sporadic cases present large problems. The early typhoid state may be easily recognized, nothwithstanding the Widal test be negative and it is in the early stages that possible cure is to be anticipated. We have all been surprised when, under the most suspicious circumstances, a patient has escaped the isolation already provided for him by our forethought; and at a second conference has evidenced an unblushing disregard for our diagnosis. In my humble opinion this is not always due to a lapse of the prompt diagnostician (if, indeed, the doctor can be that as well as "symptom-hunter") but an entirely favorable result from the action of the prescribed remedy.

One such case comes to mind, and it may illustrate what I mean. The patient presented himself with a history of some days of malaise. This was marked, and it was significant, because he was usually buoyantly active. He had light-headedness, general muscular weakness, abdominal discomfort, some fever, and was mentally apprehensive. His hands perspired on their palmer surface at times. He received aconite 200, which had to be repeated, and he recovered perfectly in a few days. Now, we were taught that aconite is not a typhoid remedy. And so it is not. I know of no typhoid remedies. But aconite was the remedy for this patient whether he had typhoid or not.

As to the repetition of the remedy, the selection of a different one, or withholding medication while remedial action is progressing, all of which considerations are vitally important, we can be absolutely sure of our ground when we follow the Organon. Nowhere else are these principles so definitely and practically set forth They are indispensable to the successful prescriber.

My further conclusion is that it is not well to exclude a so-called "sthenic" remedy from possible typhoid cases, nor any other remedy in the whole materia medica, whether belonging to the sthenic or asthenic classifications, when the well-taken symptomatology calls for it.

ANTIMONIUM TARTARICUM.

By Walter Sands Mills, A.B., M.D.,
Professor of Medicine, New York Homœopathic Medical College and Flower Hospital; Physician to the Metropolitan Hospital.

Antimonium tartaricum, or tartar emetic, is a tartrate of antimony and potash invented by the alchemists. It is soluble in fifteen parts of water. The original provings were made by Hahnemann.

According to Boericke, "its therapeutic application has been confined largely to the treatment of respiratory diseases where the symptom of rattling of mucus with little expectoration has been a guiding symptom. There is much drowsiness, debility and sweat characteristic of the drug, which group should always be more or less present when the drug is prescribed. Gastric affections of drunkards and gouty subjects; cholera morbus; sensations of coldness in blood vessels; tremors all over; lumbago."

My own use of antimonium tartaricum has been confined almost entirely to respiratory diseases. I will report some verifications.

Case 1. The patient was an old man of 75 who was in a collapse from edema of the lungs. He suffered from dyspnea. The respirations and pulse were rapid. There was rattling in the chest. Antimonium tartaricum made him much more comfortable for a few days. He died suddenly within a week.

Case 2. A boy baby aged seven months, with whooping-cough. When I was sent for the child had been sick for several weeks. I was sent for because he was in convulsions. The lungs were choked up, and all kinds of sounds could be heard with the stethoscope. Antimonium tartaricum relieved and finally cured.

Case 3. Woman aged 52. This patient had hay fever during August, for which arsenic was given. By the middle of September the hay fever had gone, leaving a general bronchitis with loose cough. Antimonium tartaricum promptly cured it.

Case 4. Girl aged four years. This child had whooping-cough. She had sambucus first. After three weeks she had Kali bichromicum for the thick, stringy mucus. After another few days, this child coughs and chokes many times through night; does not sleep well; worse at night; makes her angry to cough; antimonium tartaricum gave immediate relief and the child promptly recovered.

Case 5. Man aged 50 years, a hard drinker. On October 18 he was taken with pneumonia. No unusual trouble occurred until October 25 at 6 P.M., when I was sent for in haste. My notes read: Has coughed almost constantly since 2 P.M. (four hours). Raises quantities of foul smelling stuff. Whole left lung except apex seems involved. Respiration rattling as though dying. Hot perspiration. Looks like he would die. Cough, cough, cough. In very serious condition, at that visit I gave antimonium tartaricum

for the first time. October 26, at 8 A.M., my notes read: Delirious through night. Now much better. Breathing easier. Cough has let up. Still looks badly. I fear he will die. At 3 P.M. lung sounds much clearer. Rattle gone. October 27, much better. From then on he slowly recovered. Other remedies were given as indicated during his tedious convalescence, but he never again had any alarming symptoms. I think the antimonium tartaricum saved his life.

Case 6. A baby girl aged two years. This little patient had pneumonia of the right lower lobe. My notes read: Child is drowsy. Breathing wheezy. Respirations shallow and very rapid —80. Coughs a good deal. Eyes half open and showing white when she sleeps. Can cry. Seriously ill, doubt if she pulls through. I gave antimonium tartaricum. She was better on my next visit. The remedy was changed six days later to bryonia. She was then convalescent, and recovered.

I have used antimonium tartaricum frequently as an intercurrent remedy in pulmonary tuberculosis, where there was frequent loose, rattling cough and much dyspnea. It will give such cases much relief.

Occasionally I meet with a chest condition where ipecac and antimonium tartaricum both come to mind. Ipecac has fine rales, tartar emetic coarse rales.

A CASE OF ACUTE TOXIC POLYNEURITIS.*

By Charles Lee Bailey, M.D.

Last December I was called to see Mr. T. H., aged 29, a teamster by occupation, but he also at times did painting. I was called late at night, and the patient exhibited total paralysis of both legs, and a muscular weakness of the hands and forearms. This paralytic condition was of about three weeks duration.

Late in September 1912, he assisted his brother to paint a yacht. It took them four days to complete the job. At the time Mr. T. H. was in perfect condition, and was following his usual occupation of teamster.

About December first while the patient was on the seat of his wagon, he noticed a peculiar numbness and tingling in the calf of his left leg. He got up off the seat and walked about, thinking that the numbness would pass off, but it did not. The next morning on arising he discovered numbness not only in the left leg but also in the right, and walking produced severe pain and a sensation of tightness. It became gradually worse, and in three days there was total paralysis of the muscles of the leg.

---

* Read before the New York Homœopathic Medical Society at Syracuse, October, 1913.

He had been ill a few weeks before I saw him, and on my second visit I made a very careful examination of him, and found that the muscles of the legs were wasted. There was a marked foot-drop in both feet. There was a slight wrist-drop in the left wrist, and extreme muscular weakness, and nerve hyperæsthesia touch and pain sensation were greatly delayed. The tendon responses were absent in the legs, and there was some dropping of temperature and tactile sensation over arms and legs. There was almost complete loss of motion of ankle joint, and the extensors of the knee joints were partly weak. The hip joint movements were fairly good. All of the muscles of the hand were weak, and movement of the hip joints was restricted while the shoulder movements were good.

There was complete reaction of degeneration in the lower leg muscles and partial degeneration of the lower arm movements. There was no inordination or mental condition, and the patient was unaffected. His memory was excellent both for recent and for late events, and he would recall dates of events which happened years ago with perfect accuracy.

The patient is a total abstainer as regards alcohol and tobacco.

There does not seem to be any other explanation than pleurilism for the usual or unusual cause of peripheral neuritis. The remarkable escape of intellect and memory from any involvement certainly makes one more certain of the correctness of the diagnosis.

My treatment of this patient was strychnia hypodermically, 1/30 grain three times a day, and massage of the muscles. On the foot-drop I used splints, and at the present writing following out and intending to follow out this plan of treatment, my patient is improving and hopes soon to be able to take up his usual employment.

CASEIN MILK IN SUMMER DIARRHŒA.

By Reuel A. Benson, M.D., New York City.

In 1910 Finkelstein and Meyer of Berlin, after a long series of experiments, advanced some new theories as to the cause and treatment of diarrhœa in infants, which are being generally adopted throughout the world.

In brief, they have concluded that Milk Sugar is the offending agent in these cases; that by its fermentation the functional weakness of the intestine is increased; that by eliminating the sugar from the food the intestinal epithelia tends to recover its normal strength, and that this process of repair is still more increased by the addition of finely divided casein.

As a result of their experiments they have devised a preparation known as "Eiweissmilch" (Casein Milk, Albumin Milk) which is prepared as follows: Heat one quart of whole milk to 100°F. Add four teaspoonfuls of pepsin and stir. Let the mixture stand at 100°F until the curd has formed. Put the mass in a linen cloth and strain off the whey from the curd. Remove the curd from the linen cloth and press it through a rather fine sieve two or three times by means of a wooden spoon or mallet. Add one pint of water to the curd during this process. The mixture should now look like milk and the precipitate must be very finely divided.

In the original experiments this Casein Milk was reinforced with an equal amount of buttermilk, but in my own work I have omitted buttermilk and have used instead, top milk, to increase the caloric value of the food, together with malt sugar.

The Casein Milk itself contains about one-half of 1 per cent. of sugar. Some experimenters report difficulty in its use because of the absence of the sweet taste, but in my own work there has been no trouble of this sort. It may, however, be sweetened, if necessary, by adding saccharin.

The Casein Milk is used plain instead of the usual twenty-four hour fast or water diet. In from twenty-four to forty-eight hours the stools become yellow and less frequent. Malt sugar may now be added to the mixture. I have found the Dextri-Maltose of Mead, Johnson & Company to be the most satisfactory. This malt sugar is made by the action of diastase on potato starch. The resulting mixture contains about 55 per cent of maltose and 35 per cent of dextrin and no free starch. Its caloric value is about 110 per ounce.

It seems to be more digestible than milk sugar and may be used in larger amounts than milk sugar without fermentation. I use this preparation in the majority of cases in the proportion of two ounces to a day's feedings. It raises the food value of the mix-

ture and helps to keep up the weight in the interval between the beginning of normal stools and before a milk mixture can be tolerated. After about five or six days, ten ounces top milk may be added to the casein milk in small amounts, four ounces at first, increasing two ounces every other day until the normal formula is being given.

This method of treating diarrhœa has many advantages. The food is not difficult, it acts quickly, it keeps well, and it is retained well. Unless properly used there is great danger of underfeeding, but with reasonable care the most severe cases come through with only slight loss of weight.

The question of its applicability is still open. The Germans use it in all cases of diarrhœa, but it may be that they are overenthusiastic. Only time and the observations of many men give us the information necessary to classify the cases which are most helped by it.

During the past summer I was able to study twenty cases of severe diarrhœa under this treatment. Six of these cases ultimately died and fourteen recovered. The deaths, however, were the result of some underlying condition like marasmus or pneumonia, or the babies were in a moribund condition when the treatment was begun. It was noticeable, however, that even in the cases which died, the number of stools was decreased and the intestinal condition benefited by the use of casein milk.

The cases that recovered were fed on pure casein milk until the stools were normal in color and consistency—an average of five days. After this top milk was gradually added to the casein milk until the infant was receiving its normal formula, when the casein milk was discontinued. The average time required to accomplish this was about five days. During this period one infant gained in weight, the others remained stationary or lost, but the loss in weight was not as marked as in the former methods, and with a more liberal use of malt sugar I believe that wasting would be eliminated in the majority of cases. None of these cases received castor oil or other cathartics, no rectal irrigations were given, and no medication of any kind was used.

In practise I think we shall find that certain cases will be cured by the use of cereal gruels, while others will be helped by casein milk. One thing is certain, however: casein milk is a help in the treatment of a troublesome condition.

CLINICAL DEPARTMENT.

Conducted by A. H. RING, M.D.

An Annual Plea.

With this number begins the fifth year of the Clinical Editor's efforts to instruct and entertain his readers. Each year he has asked for voluntary contributions to his column, but like the proverbial "Do drop in to dinner some time," no contributions have come, perhaps because the exact thing needed was not specified. Any practical bit of knowledge that one has gleaned from his daily work and has come to depend upon should be of intrinsic value to his fellow travellers on the same road. Each mind is a little different, and sees things from another angle, sometimes a novel one. All successful homœopathic physicians have come to have in their mind certain disease pictures, for which to them some particular drug is a specific. This to them is so trite that it is regarded as commonplace and uninteresting, but there are many young practitioners to whom such hints are invaluable. All men see puzzling cases which might fit one of several diagnoses, and have an opportunity to follow them long enough to have the real explanation of the symptoms. The time consumed in jotting down such items would not be missed, and might be of inestimable value to some one. "Do it now" and send it in.

I can only enter the plea, and wish you a very contented and prosperous New Year.

NOTE. As some have objected to the case and its discussion appearing in separate numbers, this year the whole story will be told each time, beginning with the February number.

Case 11-D. Diagnosis: Carbon Monoxide Poisoning.

It is true that this patient had for three weeks before taking gas been in a state of agitation and apprehension which betokened some mental trouble. There is, of course, no way of knowing whether this was functional or organic. It is possible that she may have gone to the stove in her daughter's short absence with benign intent and have been stricken with a slight apoplexy just as she turned on the gas. She has no memory of the incident, nor indeed for much that has transpired since. It is hardly fair therefore to say that she planned suicide.

In any case the present grave psychosis began with the gas suffocation. The findings at the Psychopathic Hospital were given last month. She came under my care September 18th, since which time there has been some physical improvement. She has been dressed each day and about; mentally however, she is much the same. The following questions and answers show well her mental state:—

Q. "How old are you?"

A. "And before I came over here I was....."

Q. "What did I ask?"

A. "How old I was—I told you I was 25 or 35."

Q. "What is that?" (a knife is put in patient's hand)

A. "That is....."

Puts it in the other hand! Patient smells it.

A. "This is a colored hat.....Charlie Cowles."

Q. "What is this?" (a bunch of keys are put in patient's hand)

A. "This is my little apron with some black in it."

Q. "Can you see the red part?"

A. "Yes."

Q. "Do you remember when we were out together this morning gathering clams, the good time we had, when we baked them with sea moss?"

A. "Yes we had a splendid time."

Q. "Is your mother living?" A. "Yes."

Q. "Is your father living?" A. "No."

Q. "How old is he?"

A. "Must be 16 or 17—It is funny to ask this question, have not thought about it for quite a while."

Patient is not able to touch nose with tip of finger of left hand, neither with the right one, though the functioning of the right one is somewhat better, sense of position is impaired—joint sense is impaired also.

Q. "Can you see me?"

A. "Surely."

Q. "Am I a man or a woman?"

A. "A woman of course."

Q. "Tell me what you see."

A. "A blue suit, black apron."

Q. "Do I wear a black hat?"

A. "Yes."

Q. "Of course I wear a moustache?"

A. "Yes, of course."

Q. "I ought to have one, for women ordinarily wear moustaches."

A. "Yes of course, I am all right—Don't you think I am all right? Don't for goodness sake say I am not all right."

It is difficult to tell how much she sees; she cannot count fingers nor tell people, but finds her way around the house. Colors are apparently entirely lost and everything is either blue or brown, though a thing actually blue is just as apt to be called brown.

Orientation is very poor, especially for time and place, though lately persons also are not at times recognized, even relatives.

In the Journal of the American Medical Society for 1911-1912, Drs. J. W: McConnell and Wm. G. Spiller reported a case of carbon monoxide (gas) poisoning with pathological findings. From it the following discussion is taken:

"Poisoning by carbon monoxide may be divided into three great classes, the division being determined by the mode of onset of the symptoms; acute poisoning, chronic poisoning and relapsing carbon monoxide poisoning.

"Under the heading of chronic poisoning by carbon monoxide are placed those cases presenting headache, nausea, vertigo, general weakness and anæmia, with some slowness of intellectual activity and failure of memory. These are all symptoms of the acute type, but appear gradually in individuals who are chronically exposed to the toxic action of carbon monoxide."

Spiller says: "The first thorough study of the encephalomalacia following carbon monoxide poisoning seems to have been made by Klebs; this honor is given to him by Hedren. Bilateral softening of the lenticular nucleus has been observed for many years as a result of carbon monoxide poisoning, and seems to be confined to the inner segments, but Oppenheim has written in the latest edition of his text-book that the method by which this softening is produced is not fully understood. The symmetrical softening of the lenticular nucleus always suggests carbon monoxide intoxication but it may occur from other causes, as Runeburg has shown (Hedren)." It is fair to assume, therefore, that our patient has some lenticular degeneration.

"The most satisfactory explanation of the symmetrical softening has been given by Kolisko, to whom we owe largely our knowledge of the circulation of this part of the brain. He states that in addition to the long arteries (arteries of cerebral softening supplying the head of the caudate nucleus, anterior limb of the internal capsule) arising from the anterior cerebral artery, a number of shorter arteries have their source in this artery which also convey the blood in a different direction from that in the parent stem. They are very small, about the thickness of a hair. Similar arteries arise from the carotid, the first part of the middle cerebral artery and the posterior communicating artery. These fine arteries do not anastomose. They supply the anterior part of both inner segments of the lenticular nucleus and the adjoining part of the internal capsule, including the knee. The extraordinary delicacy of these vessels with their almost perpendicular course at their origin is the cause of softening in carbon monoxide poisoning. In no other part of the brain is the circulation through such short and narrow arteries.

"Most extraordinary is the apparently complete or nearly complete recovery from the acute poisoning with recurrence of symptoms, possibly terminating fatally. The late symptoms may develop several weeks after apparent recovery. This recurrence of symptoms was observed in the case reported by Dr. McConnell, and similar examples may be found in the literature. Delayed symptoms may depend in large measure on previous alteration of the vessels, as by age, and on the concentration of carbon monoxide in the gas breathed. Most cases of severe mental disturbance, in old persons, have been of the delayed type (Sibelius).

"Carbon monoxide causes fatty degeneration of the intima and muscular coat of the vessels of the central nervous system. In some cases the vascular changes are not progressive, but their results are progressive, from continued imperfect nutrition. Hemorrhages may occur and cause progressive symptoms, and yet hemorrhages have only occasionally been found. Aside from these possibilities we must assume, according to Sibelius, a progression of the vascular changes, although we do not understand the method. This I would explain, in part at least, by calcification. In the areas that are to become calcified the circulation is very feeble, the blood plasma seeping through the tissue as through any dead foreign substance of similar structure, without the pressure of red corpuscles to permit of oxidative changes."

Remember Eserine Sulphate 1/60 grain subcutaneously in tympanitis. It may be repeated in an hour or two if necessary.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

A BUSINESS MANAGER FOR THE AMERICAN INSTITUTE.

For some years past the more deeply interested members of the American Institute have been impressed with the belief that the interests of our national body would be materially enhanced if it had a thoroughly well qualified business man to look after its material prosperity. This idea was partially worked out in the experiment of employing a Field Secretary three years ago. The poor health of the man so employed militated materially against the success of that experiment.

At the last meeting of the Trustees of the Institute held in Cleveland on December 6, the President recommended, in definite form, the employment of a non-medical man for the position of business manager. The suggested duties of such a manager were as follows:

1st. The direction and general management of all the finances of the Institute. He would become the business manager of the Journal, securing all the advertising as well as securing new subscriptions.

2nd. The arranging and management of public meetings for the purpose of spreading a knowledge of Homœopathy, and thus securing funds for the furtherance of our institutions of research and relief.

3rd. The establishment of county and sectional societies wherever needed, or the resuscitation of those about expiring.

4th. Providing at all State society meetings medical speakers who would advance the cause of the Institute by short, lucid, telling speeches.

5th. By person or by proxy to endeavor to reclaim every homœopath who has gone over to the old school.

6th. To have charge of the exhibits at the annual meetings, not alone of the Institute, but of so many of the State societies as wish his services, and thereby make a goodly sum of money for the Institute and the societies. Also to secure the most advantageous

hotel rates, railroad fares, and other concessions at place of meetings.

7th. The direction of the publicity work.

It was suggested that the Institute pay a salary of $3500 for the first year, with the understanding that if the manager accomplished certain previously agreed upon results his employment should be continued for five years with a rising scale of salary. Such arrangement would place before him a goal sufficiently attractive to stimulate any ambitious man to do better work each year.

This suggestion of the President was cordially received by the Trustees, and the Finance Committee was delegated with the duty of endeavoring to ascertain if such an agent could be secured, to enter into negotiations with him, and to report the results of their findings at the next meeting, in order that the Institute might take action thereon.

The opinion seems prevalent in the membership at large that this work, as above outlined, can be better executed by a business man than by a medical man. The difficulty of securing a competent physician who would take up this work at the salary which the Institute is able to pay, renders it almost prohibitive. Moreover, it is in the line of a promoter's work rather than that of a physician's.

In the matter alone of managing the finances of the Journal, an experienced man could bring the net earnings of the Journal up to a sufficient figure to pay the salary of the Editor and Secretary, if not the entire amount of his own salary. By virtue of keeping in close touch with physicians all over the country he could secure more new members, taking the year through, than could a medical man or a Committee of men. Nothing succeeds like success, and if the eight or nine thousand homœopathic physicians in this country who are not members of the American Institute could be made to realize what the parent body is doing for the general advancement of the cause, and the placing on a more secure foundation the homœopathic institutions of this country, there would be little difficulty in giving the Institute a professional and financial stability of a pronounced character.

The work done by individuals and committees along this line has been too sporadic and spasmodic. It has lacked continuity of purpose. The little progress made by our council in securing a propagandistic fund is an example of the halting progress of such work done by busy physicians who cannot give their continued attention to it. Business men are amenable to business propositions. Suppose Dr. A. has a wealthy patient who feels under obligations to Homœopathy because of its skillful employment in his family by his physician. Dr. A. writes to the Business Manager to come to

see him. Together they go to the patient's place of business, and the Manager in a few words tells the business man of the capital invested in our homœopathic hospitals, colleges, dispensaries, and research institutions throughout the country. He tells him of our fifteen thousand homœopathic physicians in the country representing some seven million patients, constituting our best class of citizens who are paying their full share of the taxes. He tells him of the constant cry from remote fields for more homœopathic physicians, and our inability to supply them, due largely to our poorly equipped and unendowed medical colleges. He tells him of the determined effort on the part of medical politicians to drive Homœopathy from off the face of the earth and thus deprive people of a beneficent means of cure, for which up to the present there has been no substitute offered; that unless we get our colleges endowed and have at hand research institutions, his children and grandchildren must perforce be deprived of that boon which was their fathers' heritage.

Would not a business talk of that type by a man who knew every feature and fact of our school and had them at his tongue's end, do more in a year's time for an endowment or propagandistic fund, than all our committees banded together could do in ten years?

Another suggestion of the President, which the Trustees endorsed, was that each incoming president appoint one or more men in each State to be the "speakers" for that State, so that when the Business Manager wanted a physician to address a mass meeting or a public gathering which he had secured, this appointed physician could come without travelling a great distance and tell the people the scientific and practical side of Homœopathy. With every State in the Union holding one or two such meetings each year and the widespread newspaper notice of such meetings, there would soon result such a thorough growing knowledge of Homœopathy that nothing could prevail against it. Prejudice would crumble, and the arrogance of "established medicine" would hide itself for shame. While "truth crushed to earth will rise again" it will rise much faster if it has a substantial "sinking fund" to help it rise. The truth of Homœopathy just now needs such a fund to perpetuate its teachings and increase its votaries. Let us employ accredited methods to secure it!

D. G. W.

NEW METHOD FOR THE ADMINISTRATION OF ETHER.

The very latest thing in the administration of ether is a method devised and executed in one hundred cases by Dr. J. T. Gwethmey of New York.

On November 20, 1913, before the Society of Anæsthetists, he

demonstrated his method by which he injects into the rectum a mixture of olive oil and ether. The method is very simple.

One hour before the proposed operation, the patient, if an adult, is given an hyperdermic morphine injection of 1/6 or 1/4 of a grain. At the expiration of the hour eight ounces of a seventy-five per cent solution of olive oil and ether is injected in the rectum without preliminary medication, or other preparation save the emptying of the rectum.

The ether quickly becomes liberated in the colon, passes into the blood, the supply of which is abundant in these structures, and soon causes complete ether narcosis. In a short time the odor of ether can be detected in the patient's breath. In the event of the patient showing evidence of an over-dose of ether, cold water was injected into the rectum, which brought away the oil and remaining ether. Dr. Gwethmey demonstrated to the apparent satisfaction of those present that the method was not only safe but extremely satisfactory to the patient. There was no struggling, no excitement, and no dread, no ether cone nor chloroform mask. In many of the one hundred cases which Dr. Gwethmey reported, the patients were not conscious that they were being etherized, as the process was so gradual. The patients began to go to sleep in from four to twenty minutes after the injection of the mixture. Out of the one hundred injections one death occurred, concerning which the statement of the attending surgeon was emphatically to the effect that the death was the result of operative shock, and not of ether, as the death occurred twenty-four hours after the operation.

A few cases have been reported by other surgeons with varying results. Some testify that the patients do not remain narcotized sufficiently long for an average major operation; others that there has been some unpleasant rectal irritation. But the majority agree that it materially lessens the dread and unpleasantness of the pre-narcosis stage.

While one hundred cases are not the necessary sparrows to make a Spring, yet they are certainly harbingers of an improved method of narcotizing patients. D. G. W.

SPORADIC HOMŒOPATHY IN THE OLD SCHOOL.—PHOSPHORUS.

A recent article on the treatment of consumption has come to our notice. It is entitled "The Use of Phosphorus in Diseases of the Lungs," by F. Lemon in the New York Medical Journel of August 16, 1913. The author begins with the following words: "So far as I have been able to ascertain by reference to literature and records, no mention, for the last thirty years at least, can be found of phosphorus, in the pure state, having been administered

as a therapeutic measure in the treatment of diseases of the lungs." In the summary of this article the author gives the result of his experience and his opinion regarding this remedy, to the effect that it is of universal benefit in all diseases of the lungs, but most especially in tuberculosis. The following sentence is interesting: "What the precise action of phosphorus is it is impossible to state, but in view of the foregoing it would be interesting to have a physiological research made into its action on healthy and diseased lung tissue." His dose varies from 1/500 of a grain of phosphorus to one drop of the 1-1000 tincture. In the majority of his cases he used this remedy in combination with other drugs except when "necessity compelled the use of it alone," although he remarks that "it is obvious that the success which has attended all cases where it has been used has been largely, if not altogether, due to its presence in the mixture."

My remarks in regard to the paper of Dr. Lemon are not given with the purpose of trying to prove that Dr. Lemon is a homœopath in disguise, because it is too self-evident that his lack of knowledge of the principles and practice of Homœopathy and the materia medica is sufficient to bar him from our ranks,—an exclusion which he undoubtedly prefers,—but with the idea of calling attention to the fact that he holds erroneous ideas both as regards the originality of the use of phosphorus in pulmonary diseases and the pharmacology of the drug.

In the first place there is considerable difference between giving phosphorus and giving hypophosphites, a fact which Dr. Lemon does not bring out and which he does not seem to appreciate. For the past sixty years the old school has employed the hypophosphites in tuberculosis with the idea that the phosphorus acted as a "tonic" to the blood and nervous system. Or else they gave it as an "alterative," a term which has yet to be comprehensively described to a pharmacologist. The French writers then came to the rescue of this blind phrase of "alterative" as applied to the hypophosphites by claiming that demineralization took place in tuberculosis whereby phosphorus and calcium were required in excess of that obtained from foods. Thanks to the researches of A. Ott* this mistaken idea has been corrected in as much as his balance-sheets show that if a proper diet is given the consumptive shows no demineralization. In pneumonia we know that there is a retention of chlorine and a diminished excretion of phosphoric acid, chiefly affecting the earthy phosphates. Consequently, there can be no argument left that the hypophosphites are required for their food values in pulmonary diseases. Furthermore, it has been shown that hypophosphites administered by mouth can be al-

* Van Noorden, C., Metabolism — The Pathology of. Chicago, 1907. Vol. II, p. 343.

most entirely recovered unchanged from the urine.* Plenty of phosphorus exists in the common American diets to supply the demands for this mineral by the body tissues. It is its medicinal or what we choose to call its dynamic value rather than its food value that gives phosphorus its place as a useful drug.

The old school of medicine uses the dynamic properties of drugs, but in so doing they are guided by pure empiricism. That is, they discover the usefulness of the dynamic action of a drug in a disease such as iron in chlorosis, quinine in malaria, etc., and then apply it. They are satisfied that a drug works, and except for a few pharmacologists they do not care how it works. Thus, Osler in his Clinical Medicine remarks that "it is of minor significance how iron cures chlorosis." The homœopathic school having studied the modus operandi of the few known specifics in medicine, and having found that these specifics had pathogeneses resembling the diseases which they cured, adopted the therapeutic principle, "Let likes be treated by likes." The application of this principle necessitated a more accurate study of all drugs in order to obtain a greater range of similars. The homœopathic school by making this study has naturally enriched our knowledge of pharmacology.

In applying this new knowledge many a drug was administered in a disease which hitherto had never been thought of as being of value in that disease. Moreover, it was then found that this new remedy was decidedly efficacious in comparison with the previous treatment. Thus guided by a principle a new system of therapeutics arose, and with it many useful additions to our armamentarium for relieving the sick.

In the course of this awakening in the study of the materia medica, Fleishmann of Vienna was prompted to try phosphorus in the treatment of pulmonary conditions, because phosphorus was shown to have a selective affinity for the lungs and produced symptoms similar to those which occurred as manifestations of pulmonary diseases. Out of 377 cases of pneumonia treated with phosphorus alone he had only 19 deaths; *i.e.,* a mortality of 5 per cent. Dietl, prompted by the results of Fleishmann and others, reduced the mortality in pneumonia from 20-30 to 7-9 by omitting antipholgistics and tartar emetic.† The difference is at least worthy of consideration. Cl. Mueller and Baehr made further studies of the pathogenesis together with the clinical efficacy of phosphorus and drew up indications and contraindications for the use of this drug in pulmonary diseases. For the past sixty years physicians of the homœopathic school have used phosphorus in diseases of the lungs, especially in tuberculosis and pneumonia with results which have

*Journal of the American Medical Association. March 8, 1913, p. 747.

† Hughes, P. Principles and Practice of Homœopathy, p. 555.

justified their tenacity to the therapeutic principle *by which the medical profession was first guided to try this drug in these cases.*

In Allen's Encyclopedia of Materia Medica there are no less than six and one-half pages devoted to the respiratory symptoms of phosphorus, among which is abundant evidence to show that this drug not only affects the lungs when inhaled as a gas but also when taken by mouth. The animal experimentations with phosphorus by Magendie, Orfila, Schuchart, Mayer,* and Mannkopf† all showed the action of phosphorus on the lungs. The autopsies displayed congestion, hepatization and extravasations of blood into the organs. Dyspnoea, bloody expectoration, and stertorous breathing were the symptoms of these pathological changes. Falk, Mannkopf, and Guengel studied the temperature in phosphorus, from which it was shown that unless the organism was overpowered by the poison a reactive fever is often brought on. In Mannkopf's cases of phosphorus poisoning in the human being there is a marked evening rise of temperature.‡

An impartial and critical analysis of the records of poisonings, provings and animal experiments with phosphorus contained in the fifty-two and one-half pages devoted to these in the third volume of the "Cyclopædia of Drug Pathogenesy" cannot fail to arouse an interest in any medical mind no matter how sceptical, provided he is not satiated with preconceived ideas and notions to the stage of bigotry. Furthermore, a perusal of the clinical records of pneumonia and phthisis in the homœopathic literature or our most competent observers will convince any one familiar with statistics in these two diseases that the use of phosphorus under certain conditions can be said to be of even greater value than no medicine at all or what some call the "expectant method," a term which is very deceitful because theoretically it implies the use of very little medicine, but in practice it too often means attempted allœopathic prescribing, usually of the most unscientific kind. By this I mean the administration of alcohol as a "stimulant" when it has been shown to be a depressant; the use of strychnia as a direct cardiac stimulant when it has been demonstrated repeatedly that it has no direct action on the heart muscle but causes the heart to do more work by tightening up the arterial tree; the use of calomel "to get rid of the bile" when the results of careful laboratory experiments indicate that it does not increase the bile, etc., etc.

That the adherents of both schools have been working on the use of phosphorus in pulmonary conditions, in spite of Dr. Lemon's inability to find anything on the subject, is indicated by a few ref-

* Mayer. Casper's Vierteljahrschrift. Berlin, 1860, XVIII, p. 185.

† Munk and Leyden. Die Acute Phosphor-Vergiftung. Berlin, 1865, p. 4.

‡ Ibid. p. 50. Also Mannkopf, E. Beitrag zur Lehre von der Phosphorvergiftung. Wien Med. Wochenschr, 1863, Nr. 26. p. 309.

erences which have also come to our notice together with Dr. Lemon's articles:—

Acute Pneumonic Fever, VanDenburg, Wm. H., *The Clinique,* Chicago, August, 1912, p. 461.

Homœopathic Medication in Pneumonia, Sickels, E. A., *Ibid.,* December, 1912, p. 711.

Therapeutics of Pneumonia, Dienst, G. E., *The Critique,* Denver, August, 1912, p. 302.

Remedies in Infantile Pneumonia, McGeorge, W., *Homœopathic Recorder,* June 15, 1913, p. 247.

Tuberculosis and Phosphorus Metabolism, Aleindor, J., *The Practitioner,* London, January, 1913, p. 123.

Use and Abuse of Drugs in Tuberculosis, *Ibid.,* p. 120.

Remedies in Pneumonia, McKinstey, F. P., *North American Journal of Homœopathy,* Sept. 1913, p. 533.

REVIEWS OF MEDICAL JOURNALS.

The Medical Advance, October, 1913.

1. "Hunger Pain," S. L. Guild Leggett.

The term is not defined. There is a peculiar inconsistency in stating that "the first diagnosis of the meaning of hunger-pain is of course hypochlorhydria," then following this with the statement that the pain is relieved by eating bland foods, milk, eggs, etc., because the protein is largely alkaline in constituent." It is reasonable to assume and in fact we can show by analyses of gastric contents that such relief is far more commonly experienced in cases of *hyper*chlorhydria.

The author gives a tabulation of remedies which have an "empty feeling" among their supposedly pathogenetic symptoms.

2. Fruits, J. B. S. King, M.D.
3. Lycopodium, C. F. Junkerman, M.D.
4. The House-Fly Nuisance, L. H. Hendrixson, M.D.
5. Diphtheria, H. Leigh Deck, M.D.

This is a letter, addressed to the editor of the *Medical Advance,* reporting a "bad case."

The patient was given "baptisia, phytolacca and tuberculinum during two days without results," then "24000 units of antitoxin in six injections" presumably during the two weeks following. At the expiration of this period with the patient still delirious and showing no throat improvement, apis, 200, later 1M. was given. In thirty hours the temperature was normal, the membrane gone, and excellent recovery ensued.

The antitoxin was given because he didn't know what else to do, and because the patient's mother was an allopath. The credit was given to apis, because antitoxin should show a marked result in thirty hours according to the nurse whom Deck quotes as his authority. Whether or not the diagnosis was verified by bacteriologic examination is not stated. Even the experts in antitoxin therapy, who neither use the serum because they do not know what else to do nor because they are afraid of the allopaths, do not expect much benefit from its use in streptococcic or pneumococcic infections of the throat.

6. Involuntary Proving of Boiling Cadmium, R. E. S. Hayes, M.D.
7. Dynamism in Therapeutics, R. Allendy, M. D.

A translation from "L'Homœopathie Francaise."

The Medical Advance, November, 1913.

1. Homœopathic Treatment of Typhoid Fever, J. Hutchinson, M.D.
2. Homœopathic Treatment of Tuberculosis, M. W. Turner, M.D.

We apologize to the *Advance* for printing this paper in our December

issue without their permission. The author failed to inform us that he had submitted the article to other journals than ours.

3. Natrum Muriaticum, W. J. Hawkes, M.D.
4. Pertussin Experiences, R. E. S. Hayes, M.D.
5. Homœopathy from a Layman's Point of View, Rev. C. Delaux.
6. Presidents address. (International Hahnemannian Association, 1913.) J. B. S. King, M.D.

S. B. H.

The Journal of the American Institute of Homœopathy, October, 1913.

1. The International Homœopathic Council meeting at Ghent, Belgium, George Burford, M.D.
2. Was It Worth While? J. P. Sutherland, M.D.

Published in the GAZETTE, Sept, 1913, p. 455.

3. Shall a Certificate of Good Health be Required Before a License to Marry be Granted? H. M. Stevenson, M.D.

An affirmative answer is, of course, necessitated by an intelligent consideration of the facts concerning the nervous and venereal diseases which affect both parents and offspring. The author discusses the methods of making such a procedure compulsory.

This question is only second in importance to that of rational, universal, progressive education of the growing child in the matters of physical, mental and sexual hygiene.

4. X-Ray in the Treatment of Tuberculosis, J. D. Gibson, M.D.

The author admirably portrays this comparatively recent method of treatment, logically explains its probable action, and summarizes its effects. There are at least two of his many auxiliary measures which can hardly be recommended.

He favors the use of strychnine in almost all cases of the disease, discussing its use in the paragraph which has to do with the need of paying attention to the heart and the low blood pressure. Strychnine has no direct action on the mammalian heart, and by its influence on the vasomotors it causes a contraction of the internal (splanchnic) vessels and a consequent increase in the amount of blood which flows through the surface channels. How this drug, then, can help antagonizing the internal, beneficial hyperæmia which the X-ray is supposed to produce, is difficult to understand.

In regard to the alleged necessity of "controlling" the cough, it may possibly be necessary or advisable in extreme cases to use such drugs as morphine, heroin, dionin, etc., but we cannot concur in any recommendation to employ them in a moderately routine way to suppress that one natural symptom. The use of such drugs for their effect of deadening the sensibility of the bronchial mucous membrane or the irritability of the nerves supplying the lungs, is equivalent in rational to the use of cathartics as a "curative" measure in constipation.

Gibson thinks that the use of ozone in the treatment of tuberculosis is of undoubted value, but he fails to explain why. Two recent, independent investigations (Jour. of A. M. A. Sept. 27, 1913.) have demonstrated the following: "Human beings are injuriously affected by amounts of ozone far less than are necessary to produce even its slight bactericidal effect."—"Ozone does not make pure air any more than strong spices make pure food."—"The ozone irritation (of the respiratory mucosa) leads to intense hyperæmia, but this hyperæmia is obviously correlated with repair of the injury to the epithelial cells wrought by the ozone. Such cells are probably more readily invaded by bacteria and have less than normal power of growth and healing despite the hyperæmia. And all bacteria so far studied are much more resistant to ozone than are the cells of the respiratory tract of man,—the use of this poisonous gas as a therapeutic agent is either valueless or injurious."

Gibson's method of "passing it through a nebula of menthol, camphor, eucalyptus oil, pine needle oil, and argyrol and liquid petroleum," might reasonably be supposed to remove some of the characteristics, possibly

the injurious ones, probably the very identity of the ozone, so we cannot say that the practice is directly harmful.

A lengthy and practical discussion follows Dr. Gibson's paper.

5. Tolle Causam—From the Homœopathic Standpoint. Philip Rice, M.D.

In this excellent introductory paper, Rice illustrates a novel method of study which should help us to understand *why* we become diseased. He has investigated the subject of morphology in an effort toward the comprehension of the essence of the cause of predisposition and susceptibilty. Wonderful possibilities are suggested even from a superficial consideration of the mere start which has been made.

6. Discussions of Dr. J. P. Sutherland's article—"Some Inadequately Recognized Teachings of Hahnemann."

Some of these discussions are pro, one is con, but concerning the scope and substance of the paper the "pros" overwhelmingly predominate, although the negative side brings out some important if perhaps irrelevant points.

S. B. H.

Medical Century, November, 1913.

1. The Educational Problem of Homœopathy and its Solution. Stuart Close, M.D.

So severe have become the requirements and so extensive the course of instruction in the subjects of general medicine; so wide-spread is becoming the non-recognition by the state examining boards of Homœopathy as a department of medicine, that educationally, Homœopathy is slowly being starved to death. The student is so pressed for time to devote to the medical and surgical sciences and arts that he has to neglect those *additional* subjects which pertain to Homœopathy. He is impressed with the fact that a knowledge of Homœopathy is not required by the State but only by the college, so with characteristic myopia, he determines to conform to the unjust legal requirements, and to manage to just "skin through" the subjects concerned with Homœopathy.

To meet such a condition the school must either lower its standards in all the branches taught, or maintain a very limited conception of what constitutes competency in Homœopathy and of the means necessary to attain it. Dr. Close believes that the remedy is to be found in the establishment of a post-graduate school, a College of Homœopathy. He admits that "what we may lose in numbers we shall gain in quality, and in the long run, it is quality that counts."

Reviewer's Note. There is not space in which to discuss the fundamental cause of this condition, namely, the truly pathogenic and pathogenetic vertebral ankylosis of many of the State examining boards, especially of the New York Regents. We must maintain, however, that there is a way of heightening the competency in Homœopathy of our graduates without yet resorting to the radical departure which Dr. Close advocates. We must beware the fallacy of looking for judgment and experience in youth. Hence our faculties must supply such judgment and experience—*in Homœopathy as well as* in surgery or physiology,—in quantity and quality sufficient to stimulate a healthy interest in Homœopathy. Once such interest is aroused, the student—if he is worthy of the name—can be safely relied upon to attain a measurable degree of power of rational judgment. It is reduced to a problem of how to make the student *think*. This rests largely with the individual instructors in the departments which are concerned with therapeutics.

If we can have *sincere* men in our professional chairs; if we will *sanely* delimit the sphere of Homœopathy; if we will *intermingle* our instruction in the three main principles of Homœopathy with instruction in pharmacology, clinical medicine, pathology, theory and practice *et alias;* if we will be content to *stimulate* the student to dig out the profundities of homœopathic philosophy for himself; we shall see our men graduating with a competency in Homœopathy equivalent to that which they possess in the other branches of medicine.

2. The Salts of Baryta. G. E. Dienst, M.D.
3. Eucalyptus Globulus. A. L. Blackwood, M.D.
4. The Interpretation of Symptoms.
5. Topical applications as Adjuvants in Homœopathic Dermatologic Practice—Advancing Arguments to Prove that Local Treatment in Skin Diseases does not Interfere with the Action of Potentized Remedies. Ralph Bernstein, M.D.

The title is explanatory, and evidence is adduced to support the arguments, that the "absorptibility" of the skin is practically negative with but few exceptions, and that it is not possible to drive the eruption "in."—The reader is left in the dark as to the nature of a "potentized" remedy.

6. Recent Revelations of Science and Their Relation to Applied Homœopathy. F. F. Casseday, Ph.B., M.D.

This article takes up several of the recent ultra-scientific discoveries which concern radiation, and by analogy the final conclusion is drawn that matter in a fine state of subdivision is best adapted for the various needs of the human body. This new theory of drug action—"Radiation the force Which . . . . Cures Disease"— is stated to be supplementary to the law of similars.

The author says, with reference to the abnormal body, that it "is crying aloud for certain material urgently needed in the human laboratory;" . . . . "Radiation . . . . is the real method which the body employs in maintaining life, elaborating food, and curing disease;" . . . . "Radiation increases its activity and push in proportion as matter is more finely divided,"—[Reviewer's Note], the whole constituting a chain of thought which might lead us to suppose, with reason, that we would become more radiant on a liquid than a solid diet. However plausible the reasoning, however fluent the argument, we remain unconvinced that we have received confirmation, for our methods of alleviating abnormal *biological* phenomena, in conclusions analogously drawn from hypotheses of the ultra-*physical* scientists.

7. From a Pessimist's View-Point. S. R. Stone, M.D.

A jocose recital of the woes and troubles of the doctor's life.

S. B. H.

Berliner Homœopathische Zeitschrift, October, 1913.

Experiences with Radium Potencies. Kirn. The author reports a number of successes with bronchial asthma, dysmenorrhœa, warts and eczema by the use of Dieffenbach's Radium bromide 12 or 30x. In carcinoma the benefit derived was chiefly the relief from pain without any apparent alteration of the growths.

The theory of a Universal Law in medicine and other matters. Dahlke, P.

A profound discussion of homœopathic philosophy with especial reference to the relation of matter to energy as regards the potency of drug preparations.

Diseases of the Stomach. Kroener. An extensive article to be concluded in the next number.

SOCIETIES.

Trustees' Meeting, A. I. H.

The meeting of the trustees of the American Institute of Homœopathy was held December 6, at Hotel Staler, Cleveland, Ohio. There were present:

President DeWitt G. Wilcox, M.D., Boston, Mass.; Grant S. Peck, M.D., Denver, Colo.; Anna D. Varner, M.D., Wilkinsburg, Pa.; J. Richey Horner, M.D., Cleveland, Ohio; Thomas Franklin Smith, M.D., New York City; Joseph P. Cobb, M.D., Chicago, Ill.; George Royal, M.D., Des Moines, Ia.; Thos. H. Carmichael, M.D., Philadelphia, Pa.; Arthur B. Norton, M.D., New York City; John P. Sutherland, M.D., Boston, Mass.; W. B. Hinsdale, M.D., Ann Arbor, Mich.

Action was first taken on the death of Dr. James H. McClelland of Pittsburgh, Pa. His name has been contemporary with the greatest development of the homœopathic school, of the United States. His mind was most satisfactorily employed when grappling with its problems. His earnest enthusiasm never lessened until he saw Hahnemann honored by the nation, in statue, at the nation's capitol. His voice was ever raised to warn against danger, and to fearlessly champion the truth of the Law of Similars. Drs. Smith and Sutherland together with the Chairman were instructed to write to the family expressing the deep sense of loss which the Trustees feel in the death of Dr. McClelland.

The report of the Council on Medical Education showed that decided progress has been made in the securing of pledges for the propagandistic fund, They reported that $8000 has been raised, with much more in sight.

As Dr. Cobb had been appointed as a special representative of the Trustees to ascertain the situation concerning the Institute on Drug Proving, he reported that the information which he had been able to receive from the Chairman of said Institute was very unsatisfactory. The next issue of the *Gazette* will give the correspondence which took place between Dr. Cobb of the Trustees and Dr. Custis of Washington, Chairman of the Institute of Drug Proving. That correspondence will speak for itself.

Dr. Wood reported regarding the relation of the Institute to the American College of Surgeons. He went over his correspondence with Dr. Franklin Martin of Chicago showing the attitude taken by the special Committee appointed by the Institute; namely, that the College of Surgeons recognize the American Institute on the same basis that the American Medical Association is recognized, and that its surgeon members be admitted to Fellowship in the College on the same basis thereof; also that the Institute be represented on the Board of Governors and the Board of Regents in the College by virtue of its allied societies. He also reported that the said Committee of the Institute was invited and did meet with the Board of Regents of said College, in Chicago, on November 13. At said conference Dr. Wood presented the claims of the Committee. and has since been assured by individual members of the Regents that said claims were entirely fair and reasonable and would, no doubt, be granted. He reported, however, that he had received no official statement from the Regents that the request had been formally granted. In the meantime he requested all surgeons of our school, who have not sent in application for membership in the College, to forward their applications, or request for application to him.

Dr. Carmichael reported that the third edition of the Homœopathic Pharmacopœia is now in the hands of the printer, and that he expects the publication will be out in February.

Dr. Sarah M. Hobson of Chicago (B.U.S.M. 1890) was elected as Secretary-Editor of the Institute to fill the unexpired term (June 1915) of Dr. J. Richey Horner, Secretary-Editor resigned.

Atlantic City was definitely chosen as the next place for meeting, the date being the week beginning June 29. The Chalfonte Hotel was chosen as the place to hold meetings, as it offered every facility for sectional, general and committee meetings, with quiet and comfort combined.

As there has, in the past, been such a diversity of methods employed for securing exhibits and applying the money therefrom, the Trustees took definite action upon that matter for all future meetings, to the effect that all future exhibits given at the American Institute be under the direction of the Institute, and managed directly by the Committee on Finance, and by Resolution all surplus funds resulting from exhibits would go to the Treasury of the Institute instead of the Local Committee for the entertainment of the Institute. In Atlantic City the Hotel Men's Association donate ten per cent of the income from every Association meeting to the entertainment of the members of said Association. This will mean that over $800 will be spent next June by the Hotels of Atlantic City in entertaining the members of the Institute, thus relieving the local committee from

any financial burden, and sparing the Institute's treasury a corresponding expenditure.

A communication from Dr. Buchanan that the Phi Alpha Gamma Fraternity had offered a medal or medals to the members of the Institute at large for the best thesis presented to the Institute upon research work, was explained and referred to a special committee to formulate grounds on which such medal could be competed for, the same committee to act as judges.

The President's suggestion that a Business Manager be employed to manage all the Institute's finances, and to a great degree its propagandistic work, was adopted and referred to the Finance Committee of the Trustees for investigation, negotiation, and report at the next meeting of the Trustees. This matter is further considered in an editorial of this issue. The President further suggested that an effort be made to secure the co-operation of all of our homœopathic hospital managers in the country in adopting a rule whereby all of their appointees upon the various hospital staffs shall show their interest in and loyality to Homœopathy by becoming members of the American Institute. A Committee was appointed to further such action.

Homœopathic Medical Society of the County of Kings.

The 479th meeting of the Homœopathic Medical Society of the County of Kings was held November 11, 1913, Dr. Roy Upham, President, in the chair.

The resignation of Dr. Irving L. Farr, who has moved to Montclair, N. J., was accepted.

The Bureau of Obstetrics presented two papers: "Some Anomalies in the Forces of Labor," by Dr. J. B. Given, "Uterine Inertia," by Dr. Robert Lowell Wood. These papers were discussed by Dr. W. W. Blackman, Dr. W. H. Price, Dr. W. H. Freeman, Dr. F. H. Lutze, Dr. John F. Ranken, Dr. L. D. Broughton, Dr. L. L'B. Baylies, and Dr. Orando S. Ritch.

The Bureau of Homœopathy and Materia Medica presented one paper: "Homœopathic Remedies for Constipation," by Dr. F. H. Lutze.

Dr. Augustus Von der Luhe read a paper entitled "Weak Points in the Moral Tone of the Medical Profession."

L. D. Broughton, Secretary.

Boston District Massachusetts Homœopathic Medical Society.

The annual meeting of the Boston District, Massachusetts Homœopathic Medical Society was held at the Evans Memorial Building on Thursday evening, January 8, retiring President Stephen H. Blodgett, M.D., in the chair.

After the reading of the Treasurer's report and the delivery of the annual presidential address, the Committee on Elections announced the election of the new officers for 1914, as follows:

President: Orville R. Chadwell, M.D.
1st Vice President: Conrad Smith, M.D.
2nd Vice President: Grace Atkins Jordan, M.D.
Secretary: Conrad Wesselhoeft, 2nd, M.D.
Associate Secretary: Harold E. Diehl, M.D.
Treasurer: Edwin W. Smith, M.D.
Censors: S. H. Blodgett, M. D.; Edw. S. Calderwood, M.D.; N. H. Houghton, M.D.

After brief remarks by the new President, the business meeting was adjourned and members and guests proceeded to enjoy a substantial collation and a pleasant social hour.

The Alumni Association of the Metropolitan and Ward's Island Hospital held its annual banquet at Hotel Knickerbocker, New York City, on December fourth. The toastmaster was Dr. Egbert G. Rankin, Vice-President

of the Association, and responses were made by Drs. B. H. B. Sleght, R. S. Copeland, Ephraim D. Klots, and by Hon. M. J. Drummond, Commissioner of Charities, and Louis O. Van Doren, Esq., President of the Bar Association of Bronx County.

Report of the Necrologist, John Prentice Rand, M.D., of the Massachusetts Surgical and Gynaecological Society.

Ladies and Gentlemen:—

Again it is my sad official duty to call the roll of those who answer not. They were with us one year ago today in bodily presence; we trust they are with us still, but we cannot see them. We cannot penetrate the veil. Their lives are now to us a precious memory, and their spirits have returned unto Him who gave them birth. It is interesting to note that of the four physicians who have been called from our midst during the past year, not one of them died from infirmity or old age. They left us in the full vigor of manhood. We can never think of them as old, but clad in the garments of perpetual youth.

The first to receive the summons was Dr. Mortimer H. Clarke, of Auburndale, who died from pneumonia on January 12, 1913. He was born in New Bedford, Mass., Oct. 4, 1860, the younger son of the late Dr. Henry P. Clarke, of New Bedford, who served as provisional Secretary to the A. I. H. in 1866. He was fitted for college at the Friends Academy, New Bedford, and in 1879 was admitted to Harvard College, graduating from there in 1883. For two years after graduation he studied law at the Harvard Law School, but the study of medicine was more attractive to him than that of law, and in 1885 he enrolled as a student at Boston University School of Medicine, from which he was graduated in 1888. That he was popular with both Faculty and students is evidenced by the fact that he was selected as orator to represent his class at the Commencement exercises. Following his graduation he went to Brooklyn, N. Y., where he served for six months as an interne in the Homœopathic Hospital. He then located in Auburndale, where he remained in active practice until the time of his death.

He was interested in all of our homœopathic organizations and did what he could to support them. In 1889 he joined the Boston Homœopathic Medical Society, in 1890 the State Society, and this Society in 1892. He was also a member of the American Institute of Homœopathy, which he joined in 1895.

His wife was Georgianna Dayton, of Newton, who survives him and from whom this brief obituary notice was obtained.

Dr. James Tucker Cutler.

Dr. James Tucker Cutler died of pneumonia at his home in Roxbury on March 15, 1913. I have been unable to learn the particulars concerning his early childhood and education, but we know that his preliminary was excellent for we find that he was graduated from Williams College in the class of 1890. His medical training was received at the Harvard Medical School, from which he was graduated in 1893, and from Boston University School of Medicine, where he took a year of postgraduate study and a second degree in 1894. Following his course at the B. U. S. M. he located in Roxbury, where he built up a most successful practice.

In 1900 he joined the Massachusetts Homœopathic Medical Society, of which he remained an active member until his death; in the same year he also became a member of this Society. As a physician he was always interested in anything pertaining to the public welfare and for sixteen years he served as visiting physician to the public schools.

In 1898 he married Lizzie, daughter of Charles Mann of Roxbury, who with an only son, Charles Mann Cutler, survive him.

It was never my privilege to know Dr. Cutler intimately, but a correspondent to the local paper speaks of him as a man who gave freely of his time and strength to the rich and poor alike, with no thought of

financial consideration or reward. He combined in himself to a rare degree the culture and skill of a physician with the unselfishness and devotion of a warm personal friend. He died the death of the righteous and left behind him a large circle of sorrowing patients and friends.

Dr. Edward Roscoe Miller.

Dr. Edward Roscoe Miller died at his home in Leominster, October 16, 1913, from general septicæmia which followed an operation for hæmorrhoids at the Leominster Hospital ten weeks before.

He was born in Boston, on September 26, 1859; graduated from Nichols Academy, Dudley Class of 1883, and from Boston University School of Medicine in 1887. Immediately after his graduation in medicine he located in Leominster, where he remained in active practice until overtaken by the septicæmia which resulted in his death. My acquaintance with Dr. Miller dates almost from the time of his graduation in medicine, for upon locating in Leominster he at once joined our Worcester Homœopathic Medical Society and was one of our most constant attendants. In due time he was elected its president and performed the duties of the office with that earnestness and vigor that was so characteristic of him. In 1895 he joined the American Institute of Homœopathy and in the same year he also became a member of this Society. In 1901 he joined our State Society and made at once an impress that will endure for aye. "Great oaks from little acorns grow." It may not be known to you all, it surely must be news to the recent members, that it was Dr. Miller who first suggested to the Massachusetts Homœopathic Medical Society the desirability of perfecting some plan by which the various homœopathic societies through the State might be coördinated and brought into closer relation with the State Society and with one another. That was upon October 12, 1904, and it would be well for us all to bear the date in mind, for the suggestion of Dr. Miller, which was later put into the form of a motion, marks the beginning of a new era in the history of our homœopathic societies. It took five years and one-half, or until April 1910, for the various committees appointed to perfect the arrangement for carrying Dr. Miller's motion into effect, and so far as I know, Dr. Miller never served upon any of the committees, but the seed thought was his, and the present affiliation of our State and local homœopathic societies was the result. Dr. Miller is gone, but the suggestion he gave to us at that October meeting still lives, and I am glad at this time to make a permanent record of it.

Dr. Miller was not only a physician but a citizen in the truest and best sense of the word. He served upon the school board, was a trustee of the public library, a member of the board of trade, and chairman of the board of trustees of the Leominster Hospital. He belonged to the Men's Club of the Unitarian Church, Leominster Lodge I. O. O. F., Leominster Commandery U. O. G. C., Tahante Lodge A. O. U. W. He also belonged to the Doctor's Club of local physicians, which showed his liberality of spirit towards his brethren of the dominant school.

Dr. Miller was married on December 20, 1888, to Grace G. Richardson of Grosvenor Dale, Connecticut, by whom he had one child, John R. Miller, who was graduated from Williams College last June, and who is now employed as an assistant instructor at that institution.

Dr. Miller was a consistent advocate of cremation for sanitary reasons, and his remains were disposed of by that manner in accordance with his expressed wishes and request. The Hon. John D. Miller, editor of the local paper, in speaking of Dr. Miller said: "He came here as a young man with no help for winning his way in his profession save his own character and ability. I have known him all these years, and it is far within the limit to say that he was an earnest and careful student, a trusted and skilled physician, an intelligent and public spirited citizen. His death will be a great loss to the profession and the town. I esteemed him most highly and grieve, not only that we must want him as a friend, a physician and a citizen, but that he must pass by so rugged a way to the things not seen as yet."

Dr. Orren Burnham Sanders.

Upon the 23d of last September many of us were shocked to read of the terrible accident that had come to Dr. O. B. Sanders the night before. He was driving in his car to Egypt, Mass., where he had a summer residence, when the accident occurred. Some loaded teams were just ahead of him, and in attempting to pass he came into collision with another automobile that was approaching from the opposite direction. The collision was not especially violent, and Dr. Sanders would have escaped uninjured if he had remained in his seat, but when he saw what was about to happen, he stood up in his car, in consequence of which he lost his balance when the collision came and was thrown violently to the curbing, sustaining a fracture of the skull which caused his death. He was carried at once in an unconscious condition to the Quincy Hospital, but he did not rally, and upon Wednesday, Sept. 24, he breathed his last. Whether from grief or disease, I know not, but on the 28th of October his wife followed him.

Dr. Sanders was born at Epsom, N. H., November 18, 1855, but most of his life was spent in Massachusetts. He was one of a family of nine children of whom two brothers and three sisters survive, one of the brothers being Dr. Walter R. Sanders of Derry, N. H. His early education was obtained at the Boston Latin School, from which he was graduated in 1874. He then entered Amherst College, where he remained two years. His medical education was obtained at the Boston University School of Medicine, from which he was graduated in 1879.

Early in his practice he became interested in the study of genito-urinary diseases and for many years he devoted himself exclusively to them, becoming both in reputation and fact one of the most expert specialists in the state. In 1879 he joined this Society and was always an active and interested attendant at its meetings. That was the very year of his graduation. Notice with what alacrity he took upon himself his full share of a physician's duties and opportunities for professional development. Were all our recent graduates of today like the lamented Dr. Sanders we should have no need of the coaxing, coddling and hiring procedures that have been introduced into our medical societies.

In 1880 Dr. Sanders joined our State Society, in 1881 the Boston Homœopathic Medical Society, and in 1890 the American Institute of Homœopathy.

In 1904 he was appointed as lecturer at B. U. S. M. upon genito-urinary diseases, and only last June he was advanced to the position of Associate Professor. His position at the University will be hard to fill, for his lectures were exceedingly popular with the students. And he will be truly missed by us all, for he embodied in himself those strong and heroic elements of character which cannot fail to command both admiration and respect.

RECENT DEATHS.

George F. Forbes, M.D.

Dr. George F. Forbes, the oldest graduate of Boston University School of Medicine, died on January 3 at his home in Worcester, Mass., from pneumonia.

Dr. Forbes had been in practice in Worcester for twenty-one years, ever since his removal from West Brookfield, Massachusetts. He was a member of the first class to graduate from the medical department of Boston University, 1874, a member of the American Institute of Homœopathy and honorary member of the Massachusetts Homœopathic Medical and Massachusetts Surgical and Gynæcological Societies.

Ella Gertrude Smith, M.D.

Dr. Ella Gertrude Smith, formerly of South Boston, died at her home in Kearsarge, New Hampshire, on December 2, 1913.

Dr. Smith was born in New Bedford, Massachusetts, on June 8, 1854, and was educated and taught in the schools of that city for a few years,

before beginning her medical education in Boston University School of Medicine from which she was graduated in the class of 1884.

She began practice in South Boston, and for seven years was associated with Dr. Mary L. Swain in the women's clinic at the Massachusetts Homœopathic Hospital. Finding the night work of her practice too much for her strength she was obliged to give it up, and after some years of teaching the Sloyd system in Boston public schools she retired to her farm in Kearsarge, New Hamsphire.

One who knew her best said, "Her patients loved her, her school boys loved her, and her friends loved her more than most people are loved by friends."

James P. Stedman, M.D.

Dr. James P. Stedman, one of the best known physicians in Plymouth County, died at his home in Brockton, Massachusetts, on December 24, at the age of fifty-six years.

Dr. Stedman was a native of Yarmouth, Nova Scotia, but received his education in Boston. He was a graduate of Boston University School of Medicine, class of 1882, and had been in practice in Brockton since 1892.

George Bassett Sawtelle, M.D.

Dr. George B. Sawtelle of Malden, Mass., died suddenly at his home on November 14, 1913.

Dr. Sawtelle had been in practice in Malden since 1867, the year after his graduation from Hahnemann Medical College of Philadelphia. He was born in Sidney, Maine, on January 13, 1838, of New England parentage, and was graduated from Union College, Schenectady, N. Y., in 1863.

Dr. Sawtelle was a member of the Massachusetts Homœopathic Medical Society and of the Massachusetts Surgical and Gynæcological Society.

PUBLIC HEALTH TALKS AT THE EVANS MEMORIAL.

The following popular lectures have been arranged for January and February, to be given in the amphitheatre of the Evans Memorial on Tuesday evenings at eight o'clock.

Jan. 6th, "Home Training of Children" Edwin W. Smith, M.D.
Jan. 13th, "Peculiar Children" E. P. Colby, M.D.
Jan. 20th, "Surgery that Saves" Winfield Smith, M.D.
Jan. 27th, "What to Eat and Why," J. A. Rockwell, M.D.
Feb. 3rd, "How to Cook and Why" A. W. Rowe
Feb 10th, "Sex Hygiene" (To women) Eliza Cahill, M.D.
Feb. 17th, "Sex Hygienne" (To men) A. W. Weysse, M.D.
These talks will be followed by others.

THE CONSERVATIVE VIEW.

Insanity may be only one of numerous signs of degeneracy in a degenerating family; the inheritance is, in fact, not so much the inheritance of insanity as the inheritance of degeneracy. This degeneracy may show itself in various forms, such as arterial or renal disease, epilepsy, insanity, intolerance of alcohol, liability to tuberculosis, etc. The deduction as regards sterilization is this: Eevn if epileptics, lunatics, imbeciles, and criminals were all preventing from producing the species, yet insanity and other forms of degeneracy would still occur in degenerating families. The degeneration of the family is as natural as the death of the individual. The question to answer is, Should Nature's methods of dealing with degenerate families be hastened by sterilization? To answer this question satisfactorily much fuller knowledge must be obtained about degeneration in families, and it is impossible to obtain this without taking the family history in the form of a pedigree with full particulars of each member of the family. Surely we are justified in assisting Nature by preventing the birth of degenerates, provided that some practicable method can be proposed for dealing with this

degenerate mass. Sterilization is sure in its action, but absolutely impracticable. No government is strong enough to bring forward a measure which would affect the immediate relatives of a large proportion of the electorate, for degeneracy ramifies through every class from the degenerate nobleman to the epileptic pauper. Sterilization, too, would be a measure more fitted for a Spartan government than for a modern government with its altruistic ideals. Segregation is far more practicable, but to be completely effective it must be applied to such a large proportion of the population that complete segregation must be regarded as impracticable on account of the enormous financial burden involved. It might, however, be applied to the most degenerate of the population, though it would be hard to draw a definite line between those to be affected and those not; it might be applied to all epileptics, habitual drunkards and criminals, and also to the recurrent insane.—*Boston Medical and Surgical Journal.*

THE PASSING OF THE BASEMENT HOME.

The basement as a living-room officially, passed out of existence in Missouri in September. The movement is significant as the beginning of a realization by the legislative bodies of the country that the conservation of public health is the most important factor in political economy. The basement living-room, coupled with the daily toil of children in factories and sweatshops, has enormously increased the death-rate among the children of the lowly. Particularly related to a dark, damp basement home is a lowered condition of vitality, which predisposes to infection by tuberculosis and aids the vicious spreading of all the acute exanthems. If, in Missouri, where conditions of population are at most not crowded, such a step has seemed necessary, how much more must such a law be needed in the densely packed tenements of New York, Chicago and other metropolitan cities, asks *The Journal of the American Medical Association.* Missouri, in the past, has insisted that she must "be shown," here, indeed, she has pointed the way for her sister states.

CESAREAN SECTION FROM THE POINT OF VIEW OF A PATIENT.

To the Editor:—Early last fall when it became positive that I was pregnant and not suffering from the menopause or a pseudocyesis I had to consider seriously the outcome to myself and to the child.

The thought of a long tedious labor with extensive perineal repair and, if forceps became necessary, the probable death of the much-wanted little one was not pleasant to contemplate and led me early to look up carefully the subject of cesarean section, which I selected for the following reasons: age 41; first pregenancy; measurements small; the probability in an elderly primipara of the baby being a boy with a large head like his father; the better chance for a living baby; the elimination of perineal tears with the resulting invalidism, and finally the small mortality to both mother and child when the operation is undertaken just before labor begins.

Having settled the matter of cesarean section definitely in my own mind I found a surgeon who coincided with my views, especially when the later examinations showed a malpositon of the child. This decision made for peace of mind, as much as did the continuing of my active work during the entire time of carrying the baby.

On the morning of June 13, 1912, having had mild uterine contractions most of the previous night, I went to the hospital after a breakfast of shredded wheat, milk and soft boiled egg, reaching there about 10 a. m. I was immediately prepared in the usual way for a major operation, going within the hour to the operating-room, thus avoiding the long dreary wait through which a patient usually passes when entering the hospital the night before. At my own request I was allowed to have the anesthetic on the operating-table rather than in the anesthetic room, so as to lessen the possibilities of asphyxiating the baby. I counted only five breaths before I lost consciousness and knew nothing more until I reacted in my room at 2.30 p. m. My chart says that I had severe uterine contractions, which are vouched for

also by my husband, but my only remembrance of this time was an inordinate thirst and my insistance on having a continuous supply of cracked ice, which was granted, and the three hypodermics of morphin and atropin, which were given me during the first night. Several days later desiring to cough I suddenly discovered the soreness of my abdomen and the presence of the incision. I had no nausea whatever until given an enema the night of the second day and again on the fourth day following a dose of Rochelle salts. I did suffer intensely from gas in the intestine, but this was relieved, as a rule, by the passage of a rectal tube. At the end of the first week I was annoyed by drenching perspiration at night. In ten days the stitches, in three continuous sutures, were removed. At the end of two weeks I was out of bed; in eighteen days I was at home and I went down-stairs on the twenty-third day. At no time did my temperature go above 100 F. and to that only on two days during the first week. With plenty of ice and orange albumin-water I fared nicely until soft diet was allowed on the third day, which was followed shortly by regular diet.

The child instead of being a large-headed boy was a moderately small girl weighing 6¼ pounds, and is at present doing well. My friends remarked on the nice appearance of the baby, which no doubt was due to the lack of compression. The presence in the uterus of a number of fibroids probably caused the malposition of the child.

In closing I wish to express my appreciation of Dr. M. Louise Strobel and Dr. Albert Stavely for my exceptionally good condition at present and for permission to present this case.

Martha M. Brewer Lyon, M.D., Washington, D. C., *Journal of the American Med. Assn.*

In speaking of the relation between Medical universities and hospitals Dr. John H. MacCracken, Syndic of the New York University, says:— "The University faculty ought to be able to afford a salary ample enough to make teaching, research and work in the hospital ward the main object of the professor in its medical school. With a broadening of the relations between the medical school and the hospital, the university professor would not have to seek practical experience outside the hospital wards, nor would he have to sacrifice teaching and research work to building up a private practice.

"But," Dr. MacCracken goes on to say, "until the university can hold forth to its men greater opportunities for practice at university expense, we must expect that the career of a professor of medicine will be one where a large part of the time of preparation will lie outside the field of the teaching of medicine. If, however, the university cannot furnish a complete career for the teacher of medicine, it is of immediate importance that positions should be created in the medical world which, in opportunities for public service, in dignity and permanence of tenure, shall compare favorably with judgeships or bishoprics. Of such significance should be the clinical chairs of our medical colleges."

Dr. MacCracken is emphatic on the point that the chief function of the hospital, the care and cure of the sick, should not in any way be diminished or usurped by its other important function, the training of physicians, the advancement of medical science, and the prevention of disease; and he expresses the opinion that the medical schools will succeed in establishing an *ex officio* control of wards in the city municipal hospitals only by showing that under their influence the primary end of these institutions is not at all interfered with, but distinctly advanced. In particular, he would have an official connection established between the University and Bellevue Hospital Medical College and the City Hospital on Blackwell's Island.

EYE-STRAIN CAUSED BY "MOVIES."

Constant attendance at moving-picture shows may cause eye troubles similar to those of eye-strain. This statement is made by Dr. George M. Gould in a recent issue of The Journal of the American Medical Association. Dr. Gould

says that he has recently made a practice of asking his patients, "What were you doing the evening or afternoon previous to your headache or giddiness or upset stomach?" "Nothing at all," is the usual reply, "that is, nothing out of the ordinary. I was at the 'movies' for a couple of hours and went to bed as soon as I got home, as I was feeling badly." Dr. Gould warns physicians, oculists and nerve specialists to be on the watchout for such symptoms, and when found that attendance at moving-picture shows be considered as a cause. The symptoms, he says, do not differ greatly from those caused by strain or abuse of the eyes of any kind. The most common are those of sick headache, such as intense weariness of the eyes and brain, a dazed, "good for nothing" feeling, lack of energy and appetite, "upset stomach," vomiting, sleepiness and other effects. If the patient is wearing glasses, he may think "my glasses need changing." But on consultation with his oculist it may be found that the glasses are all right, and that the cinematograph is to blame. But if the "movies" are not to blame, probably fitted glasses will enable the patient to attend moving-picture shows without discomfort. Without proper glasses, however, the cinematograph will more certainly cause nervous symptoms in the patient than when good glasses are worn, as there is no doubt that moving-picture shows put a terrific strain on even the least defective eyes, while the strain is increased by poor glasses or lack of glasses when they are needed. Dr. Gould says that the principal faults of moving-picture shows is that the "fixation point," chosen by the eye (that is the point on which the eye rests) is unstable and jerky and the eye is tired and strained in following this point. The swiftly passing series of pictures tires the eye and the brain, and the illumination is generally poor. To correct these faults he suggests that the time of exposure of each image be shortened and that better illumination be required. The enormous growth of moving-picture shows in the last ten years and the adoption of the cinematograph for teaching and for various commercial uses, as well as its probable growth in the future, makes it important that the effect of moving pictures on the eyes should be carefully observed.—*Western Medical Review, March, 1913.*

MEDICAL MILK COMMISSIONS AND CERTIFIED MILK.

The first bulletin in the new departmental series of the U. S. Department of Agriculture is a contribution from the Bureau of Animal Industry entitled Medical Milk Commissions and Certified Milk; this is revision of a previous bulletin on the same subject.

The organization and objects of the first milk commission are described and the origin and meaning of "certified milk" are set forth. The word "certified" has been registered in the U. S. Patent Office and may only be used by a duly organized medical milk commission.

The first milk commission was organized in 1893. Since that time over 60 commissions have been established but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk and the daily production is nearly 25,000 gallons, an increase of 300 per cent in five years. While this seems a remarkable increase, it should be remembered that only about one-half of 1 per cent of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremittng attention to details.

In 1907 the American Association of American Milk Commissions was organized. The methods and standards for the production and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin.

DEPARTMENT OF AGRICULTURE WILL USE BACTERIAL COUNT IN MILK INSPECTION.

Information has come to the Department of Agriculture at Washington that persons representing certain milk dealers are circulating the statement that the U. S. Department of Agriculture has abandoned all bacteriological examination of milk as a test for its cleanliness and fitness for human consumption.

The Department, therefore, has issued the following statement of its position:

1. All statements that the Department has abandoned, or will abandon the bacteriological examination of milk shipped in interstate commerce as a means of determining its cleanliness and fitness for human consumption are without foundation. While the Department has not fixed any specific bacteriological count as a standard in the enforcement of the Food and Drugs Act, it does use bacteriological examinations in reaching its conclusions, and will continue to use these methods irrespective of what action any Association may take. The Department has never stated that it will not use such methods.

2. The only change in policy in the Department in regard to bacteriological examinations has been to discontinue basing prosecution upon the bacteriological examination of a single sample. It now collects a number of samples at different tmes and examines them bacteriologically. If the bacteriological examination shows that the milk is not clean, but is not a serious menace to health, and the bacteriological deviation from clean milk is a small one, the Department, through the Bureau of Animal Industry, endeavors to teach the dairyman how to produce clean milk. If he then neglects to take measures to make his milk clean and safe for human consumption the Department, by taking action in the case of milk shipped in interstate commerce, endeavors to force him to bring his milk to a point of safety and food excellence through prosecutions under the Food and Drugs Act.

PERSONAL AND GENERAL ITEMS.

Dr. Walter M. Dake, formerly of Denver, Colorado, has removed to Hot Springs, Arkansas.

Dr. I. H. Kiesling (1904, B. U. S. M.) has removed to Rockford, Minnesota.

Dr. Everett W. Coates (B. U. S. M., 1912) has resigned his service at Trull Hospital, Biddeford, Maine, and will succeed Dr. Lawrence R. Chapp, (B. U. S. M., 1908) in practice at Farmington, New Hampshire. Dr. Chapp sails for Australia in February.

Dr. Wesley H. Ketchum (Cleveland Hom. Med. Coll. 1904) has removed from Hopkinsville, Kentucky, to Honolulu. He will be remembered as having taken post graduate work in Gynæcology at Boston University School of Medicine in the Fall of 1912. Dr. Ketchum writes that he finds conditions in Honolulu ideal, that thousands of tourists go there to spend the winter months, and numbers of these want Homœopathy. Weather conditions are ideal and free from either extremes of temperature.

It will be of interest to many who, at the recent Bazaar and Fete for B. U. S. M. Endowment Fund, took "chances" in Dr. Woodman's wonderful doll house to learn that the winning number was 1155, and the prize has gone to a tiny girl in Reading, Pennsylvania.

Dr. Dandolo Mattoli has removed his office from 1, Via dei Fossi, Florence, Italy, to 17, Via Montebello, in the same city.

PRACTICE FOR SALE—Especially good opportunity for woman physician. Growing New England manufacturing city. Payments good. Living expenses low. Address "C. L. B.," care New England Medical Gazette, 80 East Concord St., Boston.

NOTICE:

The Bureau of Clinical Medicine and Pathology of the American Institute of Homœopathy wants the names, addresses and subjects of ten contributors for the Atlantic City meeting—not later than February 1st, 1914. Edwin Lightner Nesbit, M.D., Chairman, Bryn Mawr, Pa.; G. C. Birdsall, M.D., Secretary, 1832 Kalorama Road, Washington, D. C.

APPEAL TO ALL FRIENDS AND ADHERENTS OF HOMŒOPATHY!

The undersigned is engaged in writing and publishing a most complete and extensive biography of the founder of Homœopathy, Samuel Hahnemann. The work has advanced so far, that the publication can be assured within one year.

In order to be sure of not missing anything of value, all owners of original letters or other documents, pictures, medals, etc., of Hahnemann or his immediate disciples are requested to send them to the undersigned (which should be sent by registered post.) After taking copies or photographs they will be returned immediately in perfect condition, also by registered post.

Full acknowledgement will be made in the work for all loans. The material I have already collected is far more complete than anything before attempted, including hundreds of original letters and legal documents of Hahnemann.

DR. RICHARD HAEHL.

Stuttgart (Germany)
Helfferich Str. 10.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX FEBRUARY, 1914 No. 2

ORIGINAL COMMUNICATIONS.

A GROUP OF CASES DIAGNOSED BY THE CYSTOSCOPE.*

By Louis Rene Kaufman, M.D.,

Asst. Attending Surgeon Flower Hospital; Attending Physician French Day Nursery; Lecturer on Surgery, New York Hom. Medical College and Flower Hospital; Lecturer on Surgery, New York Medical College and Hospital for Women.

Cystoscopic procedures in the study of most kidney and bladder diseases as well as in the diagnosis of certain other obscure cases offer us a large field of observation. In reviewing certain cases I have omitted detailed discussion of the technic involved in diagnosis except for a more complete description of the plan followed in the case of vesico-utero-vaginal fistula because in this case it was necessary to adopt an original method, which I have not seen described.

In reviewing some of these cases we are struck by the fact that the urinary tract may provoke reflex symptoms as well as the other great organs of the abdomen and pelvis, and that the abdomen contains the kidneys and ureters, in close proximity on the right side to the appendix. At least two of the cases show the necessity of care in diagnosing appendicitis because of pain and abdominal rigidity, an error which is so well-known and yet not uncommon. In these cases if the diagnosis is at all uncertain the urinary tract should be investigated if there are any symptoms referable to it, such as disturbances of micturition or frequency, even though these symptoms may seem secondary.

We have met a number of these cases in the female sex, especially, and there is no doubt in my mind that we should have been unable to make a diagnosis without the cystoscope in many of them. I know of no way to recognize stricture of the ureter other than by operation, and without operation through the cystoscope. The early symptoms of tuberculosis in this part of the body are indefinite and vague, as the abundant literature on the subject shows. In all

* Presented with skiagrams and drawings before the Homœopathic Medical Society of the State of New York at Syracuse, October 14, 1913.

these cases the cystoscope offers us invaluable assistance with its procedures for urological diagnosis, and we may often come to a definite conclusion by simple tests.

Case 1. Miss M. M., 27 years of age, had a sharp attack of pain in the right lower abdomen with a dull, heavy ache running through to the back; seat of maximum pain at McBurney's point, accompanied by slight abdominal rigidity, more marked on right side, some nausea; for a few hours a temperature of 99 or 100; normal blood count. History negative except that she stated that two years before she had fallen down a few steps in a sitting position, at which time for a week she had a slight increase in the frequency of urination, and since, now and then a slight pain in her side. Examination was negative except for a slightly movable right kidney. She was relieved by lying down, and any straining exertion produced intense pain. A diagnosis of appendicitis was made by another physician, who advised operation, but I insisted on delay, for I was suspicious of kinking of the ureter produced by traumatic movable or a dislocated kidney. An immediate cystoscopy demonstrated a right ureter which would not admit any instrument but a fine whalebone bougie; it was readily dilated by the Blasucci catheter, the kidney previously having been manually replaced and strapped; the symptoms were instantly relieved. She still suffers from backache but refuses operation. The diagnosis was not appendicitis, but a dislocated kidney with kinking of the ureter.

In this case the obstruction was functional. It may, however, be organic in type. It may be complete, with definite signs of hydronephrosis, or partial and slight enough to cause vague symptoms without any palpable hydronephrosis. In our cases presenting this lesion we have failed to measure the capacity of the renal pelvis which Schmidt of Chicago has shown may be done to good advantage. At any rate we are certain that some of our cases must have had, from our study of the ureter, such a paroxysmal hydronephrosis as to cause symptoms without any physical signs.

Case 2. Miss K. S., aged 16, was admitted Feb. 3, 1912, to the Flower Hospital, service of Dr. Bishop; complained of abdominal pain and tenderness. She had suffered intermittently from this pain for several months; it was worse on any exertion, requiring rest in bed; it extended to the lumbar region posteriorly, radiated down and across the abdomen and had its maximum intensity at McBurney's point. The rest of the history was negative. I operated three hours after admission for acute appendicitis through a right rectus incision. The notes made by the anesthetist state that the appendix did not seem sufficiently inflamed to account for the symptoms and that the abdomen and pelvis were explored without discovering any lesion. Patient's convalescence from the operation

was uneventful; but the pain and some other notes made then show that we had not the least idea of her condition. She was discharged in three weeks as neurotic. She returned on April 10, 1912, complaining of pain now almost continuous, and we failed to relieve her by various efforts made on the basis of a possible spinal condition, gastro-intestinal, etc. All examinations were negative, till finally the urine one day was found to contain a few red blood cells, some pus and a moderate number of cuboidal epithelia. I was asked by my senior, Dr. Bishop, to cystoscope her. The bladder was normal and the left ureter easily catheterized, but I was unable to locate or penetrate the right ureter; Dr. Sprague Carleton had the same experience a few days later. A second attempt by Dr. Carleton was successful in locating the ureter, but the catheter was arrested an inch and a half from the mouth of the ureter. I made repeated efforts to dilate the canal, without any results. We demonstrated the point of obstruction by skiagrams taken of the pelvis with a Bismuth catheter *in situ* and an ordinary one injected with argyrol. (See fig. 1.) It had taken an operation and five weeks of observation during which time she was under the care of two services to make the right diagnosis, which was a stenosis of the right ureter. In May, 1912, Dr. Bishop performed a typical Israel operation befor the Alumni Clinic. Preceding the operation the ureter had been catheterized by Dr. Carleton, and a tight stricture was revealed at

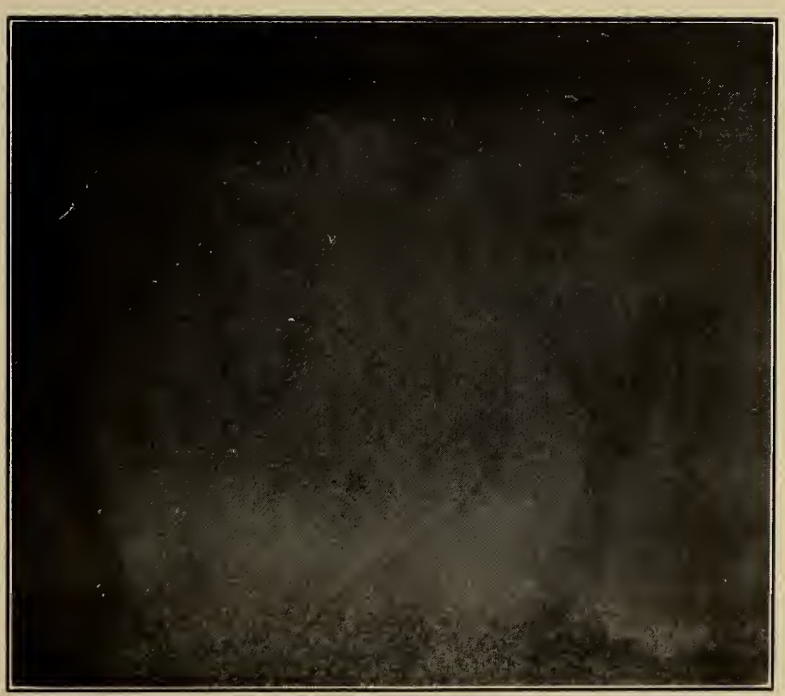


Fig. 1. Stenosis of ureter, congenital in type; the ureter would not admit any instrument through the stricture. The skiagram shows the Bismuth catheter arrested at the point indicated by the arrow which was the seat of a definite stenosis beautifully demonstrated by the operation, performed through a curved anterior abdominal incision, stripping the peritoneum off from the ureter for a distance of six inches.

the point where the tip of the catheter was arrested. She was discharged cured, but some months later she stated that her pain had returned and I was unable again to penetrate the ureter, so that I think the stricture had returned; and she has since passed out of our observation.

Turning now to a different variety of case I want to report two cases which represent forms of reno-vesical tuberculosis, a subject the diagnosis and treatment of which are occupying a great deal of attention. In these cases we may establish a diagnosis by cystoscopic procedures long before the condition can be recognized by the terminal symptoms which mean the later stages of the disease at a time when as in all malignant conditions cure is almost impossible. I have selected these two cases because they are very typical examples of puzzling cases.

Case 3. Miss C. L., aged 21, admitted to the Flower Hospital on Feb. 2, discharged cured June 6, 1913, services of Dr. Bishop and Dr. Helmuth, referred by Dr. Fred. Mosser for the relief of pain in the right side of the abdomen, of gradual onset for the last few months. The pain radiated to the back, across the abdomen, with tenderness. She complained of insomnia, anorexia and physical exhaustion, and later we learned that for several weeks she had had some increase in urinary frequency. Family history negative. As a child had scarlet fever and measles, typhoid in 1910; a few months later an appendectomy had been performed, and in the following year had had two mastoid operations. Examination showed an arrested tubercular focus in the upper lobes, a distended abdomen slightly tender over the right kidney region anteriorly, right kidney movable; persistent low lecucocytosis of 14,000, with an average polynuclear count of 67 per cent. Noguchi test was positive (subsequent specific treatment had no effect whatever, including salvarsan). Skiagrams of the kidney and bladder and gastro-intestinal tract were negative; the cuti test was negative. Two weeks after admission the urine showed a trace of albumin, increased indican, a few blood and pus cells and epithelial cells from the pelvis and tubules of the kidney; several examinations for T. B. were negative. A guinea-pig was inoculated with urinary sediment, but died too soon to permit of any conclusion.

We performed an exploratory laparatomy through a right rectus incision which revealed a Jackson membrane with many enlarged lymph glands throughout the abdomen; after repair of the membrane we excised a gland for diagnosis, and Dr. Heitzmann reported it a typical tubercular lymph gland. Her recovery from the operation was prompt, without any improvement in her symptoms. The absence of any definite signs except proof of a tubercular focus led us to consider early tuberculosis of the kidney and bladder, the more

so as she now began to complain of more marked increase in frequency and some dysuria. A cystoscopic examination showed a small, extremely sensitive bladder. The trigone was pale, more yellow than normal, with injected vessels with a cluster of tiny ulcers to the left and in front of the right ureter, as well as behind it, which were greyish white. The mouth of the right ureter was of the Fenwick golf-hole type. (Fig. 2.) The left ureter was normal. She failed to improve under all forms of palliative treatment, and on April 24 she was operated by Dr. Bishop. A typical nephoureterectomy was performed by the method of Lilienthal. The kidney was not grossly affected, but it was the seat of hyalin degeneration, of cloudy swelling, and the ureter contained two well marked ulcerations. She made a somewhat stormy recovery, but on her discharge six weeks after operation she was free of pain, vastly improved and since then has maintained this improvement; the bladder when examined in August was healed and was no longer sensitive. The only functional test made in this case was to examine specimens from the two kidneys, which showed that the urine of the left or presumably sound kidney contained no albumin and no sediment, urea 1.4, while that of the right contained a trace of albumin, blood, pus, epithelia from the kidney, its pelvis, and urea 1.3 per cent. We felt that the left kidney could carry on the work of both, and removal of the right would cure the vesical lesion.

Case 4. Mrs. V. V., Italian, aged 28, was admitted June 9,

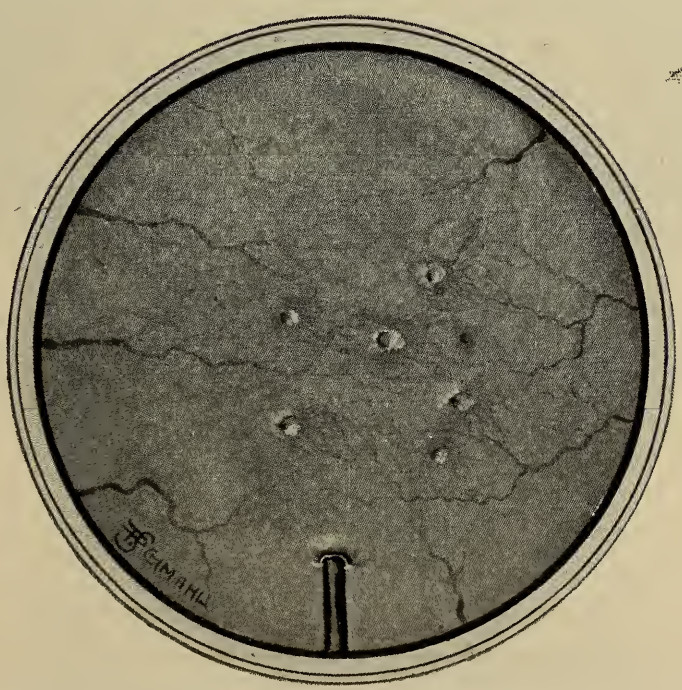


Fig. 2. Tuberculosis of Bladder, secondary to lesion of kidney and ureter, unilateral. From a water color made by Dr. Philip Schmahl of New York from direct view through the cystoscope. The ulcers are seen clustered about the mouth of the right ureter; a catheter is shown in the ureter which has the induration and peculiar pathological change designated as the golf-hole ureter, pathognomic of renal tuberculosis. Patient cured of all vesical lesions by nephrectomy.

Fig. 3. Skiagram taken to determine the relative height of renal pelvis on both sides in case of abdominal tumor in which clinically the diagnosis was in great doubt; at operation as well as by catheter measurement the pelvis of the left kidney was much lower in the abdomen than on the right side. The skiagram is misleading. It shows clearly the course of both ureters.

1913, to the service of Dr. R. A. Stewart, to whom I am indebted for the privilege of examining and reporting the case. She presented a large smooth mass extending almost to the iliac crest, filling the left side of the abdomen, reaching up beyond the costal arch and well over almost to the median line of the abdomen. She first noticed it about eighteen months before admission and at first it was very painful, but now she felt a dull, dead feeling in her side. The mass was rather typical of a spleen. Blood count showed a slight anæmia; the urine was entirely negative and its average quantity was 820 c.c. in 24 hours with Sp. Gr. of 1020. We made an

effort to determine whether this mass was a kidney, and this study may be divided into three parts:

1st. Cystoscopic findings: the internal vesical sphincter was found infiltrated with papillary growths; the trigone was distinctly hemorrhagic, indurated, the result of a possible tubercular cystitis, but not ulcerated. The right ureter was normal, with a vigorous spurt; the left ureter was hard to find, with feeble spurt so faint as to be doubtful; its mouth was retracted and indurated, and a catheter introduced passed only half the distance traversed by that of the right side.

2nd. X-Ray findings: An exposure was made of the pelvis and abdomen with the two ureters catheterized with Bismuth catheters. (Fig. 3.) The plate failed to show any appreciable difference in the relative height of the two kidney pelves, indicated by the tips of the catheters; if this mass was kidney it was reasonable to suppose that the pelvis was displaced downward. As a matter of fact the plate was misleading, for the pelvis was found displaced at operation very much below the normal level.

3rd. Functional Test: The amount of urine excreted by the right kidney was three times that passed by the left kidney. Through some error of the interne the urines were not examined. The phloridzin test showed excretion (sharp) of glucose by the right

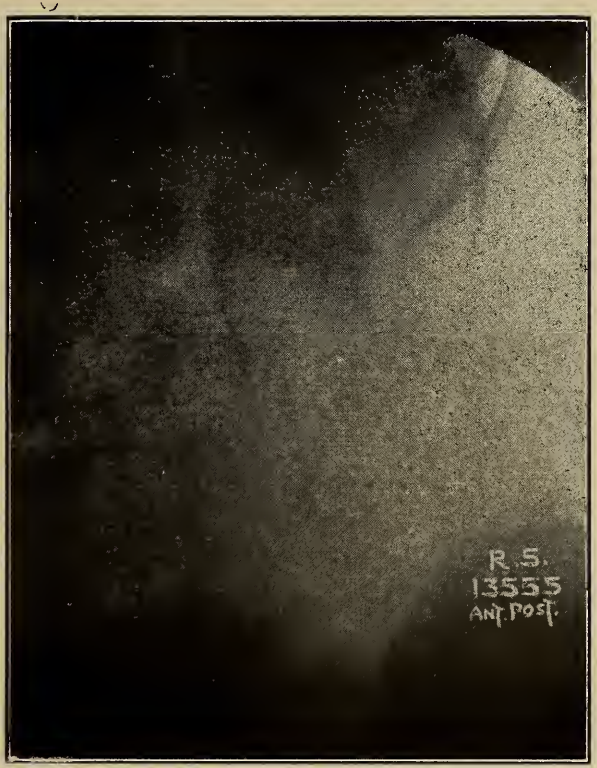


Fig. 4. This skiagram demonstrates a certain method of locating the pelvis of the kidney and the ureter. The catheter introduced to the pelvis of the kidney was injected with 10 cc. of 12 per cent collargol, which shows as an opaque shadow of the shape and size of the pelvis of kidney and throughout the course of the ureter.

kidney within twenty minutes maintained for fifty minutes; in that time the left kidney failed to excrete any glucose whatsoever.

The conclusion from these examinations was that the left kidney was inactive and hence that probably the mass was kidney, and further that the right kidney was carrying all the kidney function in this patient. On June 27 the operation by Drs. Helmuth and Stewart through a left rectus incision revealed an enormously distended kidney which ruptured in its delivery, and was clinically diagnosed by them as a tubercular pyo-nephrosis. The patient was discharged cured.

In the presence of lesions demanding nephrectomy, as in this case, the functional test affords very practical and useful information, especially the test of Rowntree and Geraghty.This test was not used in these cases; but we employed the older Phloridzin test and we were fortunate in having its results verified at operation. The cystoscope will at once decide whether the patient has two ureters, the condition of the bladder especially in calculous cases and in these cases we have through it a means at hand of obtaining definite information as to the patency of the ureters, in conjunction with the X-Ray, and assurance as to the functional capacity of the kidneys. (Fig. 4.)

In a recent case at the Hahnemann Hospital referred by Dr. Bishop the diagnosis was made clinically of renal calculus. The cystoscopic findings showed a normal bladder, the left ureter normal, the right orifice being unduly prominent and *pouty,* with a spurt diminished in volume and in time; the right ureter could not be penetrated with even a whale-bone bougie; the left ureter was readily catheterized. Urine was obtained from the left kidney directly through a No. 6 catheter, urine being obtained from the right by means of a urethral catheter in the bladder. The test showed a sharp reaction for glucose in the urine of the left kidney within fifteen minutes, maintained for one hour; in this time the right kidney failed to excrete any glucose at all. We therefore made a diagnosis of obstruction of the right ureter, confirmed by the X-Ray which showed calculi, probable degeneration of the right kidney, and a left kidney of good capacity as decided by urinanalysis as well as by the phloridzin test. Operation revealed precisely that condition of affairs, a large pyo-nephrosis, kidney riddled with stones with little secreting structure left and an ureter filled with multiple soft stones right down close to its vesical insertion.

There is another condition in which this instrument offers advantages to the surgeon, namely, vesico-vaginal fistula. An unusual case of this type was admitted to the service of Dr. Tuttle, to whom I am indebted for the privilege of reporting it, at the Flower Hospital this spring and it presented so many interesting features that

Fig. 5. Skiagram of pelvis showing a very small pelvic basin with lumbar scoliosis. The two ureters are shown by means of Bismuth catheters; the fistula is indicated by the fine wire-line; the vesical opening of the fistula being situated at the loop of these two fine lines, one arm of the loop passing from the urethra to the fistula, the other from the vesical end of the fistula through it to appear in the vaguia.

a report of it may be of value. The patient was a young colored woman who beside a pelvic deformity had a scoliosis and had some time before been delivered by craniotomy following several unsuccessful efforts with high forceps outside of the hospital. The cystoscope showed a bladder practically normal without any marked cystitis, but the base of the bladder was distorted; the mouth of the fistula could be plainly seen about ⅜ of an inch posterior and to the right of the left ureter. The mouth of the fistula within the bladder was crater-like, with a large irregular aperture, twice the diameter of the ureteral mouth, and the solution in the bladder could very plainly be seen to rush out through this crater-like opening as soon as the intravesical pressure rose, requiring continuous irrigations for all manipulations. It was a simple matter to pass a catheter from within the bladder through the mouth of the fistula so that it appeared in the vagina. At a second examination we passed two Bismuth catheters into the ureters and another catheter threaded with milliner's wire through the fistula and had a skiagram made of the pelvis of the patient. (Fig. 5.) This served to establish the relationship between the ureters and the fistula. For the operation for the cure of the fistula we adopted somewhat the plan of Dr. Kelly

recommended by him in difficult cases of hysterectomy. We catheterized both ureters so that they might be identified at all stages of the operation; and we passed a catheter from within the bladder through the fistula, one end, therefore, of the latter appearing through the urethra, the other through the vagina. This catheter served as a guide to the fistula and also as a retractor in all steps of the operation, especially during the suturing of the bladder itself.

150 West 80th St., N. Y.

THE HEREDITARY FACTOR IN THE PROBLEM OF EUGENICS.

By Dr. DeWitt G. Wilcox,
Professor of Gynecology, Boston University School of Medicine.

An English poultry breeder once said, "I can breed the stars and stripes or the Union Jack upon the wing of a fowl if you will give me time." And what the poultry breeder may be able to do with the physical appearance of the fowl we may in time be able to do with the moral and mental development of the child.

The whole science of Eugenics is based upon the theory of the hereditary transmission of physical, intellectual, and moral characteristics. Once proven there *is* no such thing as hereditary transmission and Eugenics is no longer a science but a mere fairy tale. Indeed, were we to prove that *physical* characteristics are undoubtedly transmissible and fail to prove that mental and moral traits were hereditable, Eugenics would be useful to the stock breeder but greatly circumscribed in its application to the human family. This theory has long been the subject of acrimonious discussion, and while the eugenist cannot prove all the points in his case he has made such immeasurable progress toward that end that the scientific world is largely on his side. The greatest opposition to the adoption of the science of Eugenics comes, as is usual in such cases, from the ones least thoroughly informed upon the basic truths and attainments for which it strives.

In the transmission of physical characteristics the stock breeder has deprived us of all argument against such a fact. We have only to visit his stock farm, study his registered pedigrees and note with what uniformity his sought-for characteristics have been transmitted from generation to generation. When the stock breeder will sell a pedigreed colt a month before it is born with guarantees that it will develop certain speed when it reaches a stipulated age, we must conclude that heredity cuts some figure in his business calculations.

Nor has the modern stock breeder been the discoverer of this law of transmission. If we are to believe the Mosaic account, we learn that Jacob after serving his father-in-law, Laban, for long years, demanded an accounting of the stock and it was agreed that Jacob should have all the ring-streaked and speckled cattle. This looked like a good bargain for Laban, as there were but few such cattle in the great herds. But Jacob was an Israelite, and by his knowledge of prenatal impression and careful breeding, it turned out in a few years that Jacob had not only much greater numbers of the cattle, but he had the choicest in size, breeding qualities, and market value, while Laban was left with the weaklings and Mavericks.

While we perhaps may not have an ambition to stamp the stars and stripes conspicuously and indelibly upon the tender anatomy of every new-born American child, lest his patriotic desire to exhibit it upon all occasions lead him into trouble; yet if the law as enunciated by Galton and Lamarch and Mendel prove to be dependable, we can stamp our American children with something far more desirable than the mere imprint of the flag. We can stamp them with all that America stands for; patriotism, sobriety, sanity, morality, industry, honesty, and an epitome of the Golden Rule.

To Francis Galton we must give the credit of being the pioneer in the enunciation of the principle of eugenics. He defines the subject as "the study of agencies under social control that may improve or impair the *racial* qualities of future generations, either physically or morally. Can we as physicians, biologists, and scientists, lend our aid to a more fitting practical yet altruistic course, than this as laid down by Galton?

Notwithstanding Galton's researches we find that so far back as 1815 before Darwin wrote his epoch-making treatise, Lamarch discovered a principle which has been successfully followed in the breeding of domestic animals. He called it his Fourth Law, and it is as follows; "Everything which has been acquired, impressed upon, or changed in the organization of individuals during the course of their lives, is preserved by generation, and transmitted to the new individual which has descended from those who have undergone those changes.

Thus it would appear that a parent may *acquire* a certain talent, dexterity, trait, or habit, and transmit such acquirement to his or her child, when, as a matter of fact, that parent had not inherited from his parents any such tendency. W. E. Kellicut has put it more concisely when he said, "Eugenics is the science of racial integrity and progress built upon the overlapping fields of biology and sociology." One cannot delve into the study of biology

very deeply without being convinced that the claims of heredity rest upon quite a secure foundation. Neither can the observing student of sociology get from the reclaiming cord that the influence of heredity is ever demonstrable in the flotsam and jetsam as well as the stable cargo of human freight.

If our imagination will let us go back forty-five years, we shall find ourselves in a little garden of the Augustinian Monastery, Austria. In the garden is a little monk planting peas. His name is George Mendel. He planted peas for many years; a seemingly most monotonous task, but in the planting of a different variety of peas, and the fertilization of the ova of one with the pollen of another, he produced a new variety of peas. Soon he found that his cultivated peas responded to a definite law; and he could get just the variety of peas he wanted by following such law. Year after year he planted his peas, and gave his whole attention to them, and well he might, for he has given the world a law which while it lay forgotten for thirty years, has now become the head of the corner-in-eugenics. It is called the Mendelian law. This law considers only the individual, and the exact manner in which his traits are transmitted by heredity.

While it is all interesting to know that fowls can be bred with the stars and strips on their wings; that hornless cattle can be bred in a few generations from horned cattle; that sheep can be bred so as to combine both the quality of excellent mutton and fine wool, yet the practical question which concerns the eugenists is; what must we know, and how can we apply that knowledge so as to produce a better race of humans,—a race which shall possess stability of morals, brains and body? As one writer puts it, "why should we utilize all this new knowledge, all these immense possibilities of control and creation, only for pigs and cabbages? In this era of conservation should not our profoundest concern be the conservation of human protoplasm?" As another writer says, "There is no wealth but life, and if the inherent qualities of life fail, neither battle-ships nor libraries, neither symphonies nor Free Trade, nor Tariff reform nor anything else will save the nation."

While there is nothing to be gained by going into hysterics over the steady increase of insanity, imbecility, alcoholism, degeneracy, and crime, yet it is imperative that we as physicians and scientists and sociologists set our faces squarely to the front and meet the condition (not theory) in a methodical, determined, sane manner. If the laws of eugenics and heredity offer a solution, let us by all means become masters of those laws and then impress them into the service of reclamation to the uttermost.

There is no shadow of doubt that the Mendelian laws of heredity are applicable to humans in so far as *physical* develop-

ment is concerned, and it rests with us entirely to determine whether the future generation shall be physically stable and healthy, or whether they shall continue to degenerate. But this is only a small part of the obligation which this study puts upon us. What sort of *moral* and *intellectual* fibre shall the oncoming generations possess? Heredity means so much more in humans than it does in beasts or vegetables. In the animal it is the physical only. In the human it is the physical plus the psychical; and it is the latter which distinguishes the human from the beast. Are we, therefore, simply striving to make man a better animal, or are we striving to make him more of a god?

The first great factor which we must always consider in human heredity is environment. Dugdal says "the tendency of heredity is to produce an environment which perpetuates heredity." In other words, heredity makes or seeks its own environment. This is true so far as it is possible for a person or group of persons to select their environment. The hardy, independent thinking, freedom-loving Pilgrims inherited certain qualities; they sought an environment congenial to their inherited qualities, first, by going to Holland. Here the environment was not conducive to the development of those inherited traits, so they came to the rock-bound coast of New England. Here heredity produced its environment and environment perpetuated the heredity. But those indomitable traits of character would have appeared and reappeared in future generations, no matter what the environment, just as these are now appearing all about us in the descendants of those Pilgrim fathers. Killicut says, "It is comparatively easy to improve the condition of the individual by improving his environing conditions, cleaning him, educating, leading him to higher ideals in his physical, and mental and moral life." But as this is *easy* so is this *impermanent*. All this is modificational and has no influence on the stock.

There is no question but that environment has its effect upon character; but it is unstable so far as the stock or germ plasm is concerned; it affects the individual and not necessarily his offspring. As an illustration, note the Swiss family Zero, as reported by Jorger.

"In the seventeenth century this family divided into three lines; two of these have ever since remained valued and highly respected families, while the third has descended to the depths. This third line was established by a man who was himself the result of two generations of intermarriage, the second tainted with insanity. He was of roving disposition, and in the Valla Fontana found an Italian vagrant wife of vicious character. Their son inherited fully his parental traits and himself married a member of a German

vagabond family. This marriage sealed the fate of their hundred descendants. This pair had seven children, all characterized by vagabondage, thievery, drunkenness, mental and physical defect, and immorality. In 1905, one hundred and ninety members of this family were known to be living, and probably many living are unknown on account of illegitimate birth.

In 1861 a sympathetic and charitable priest attempted to save from their obvious fate many of these "Zero" children and others who resided in and near his village, by placing them in industrious and respectable families to be reared under more favorable auspices. The attempt failed utterly, for every one of the "Zero" children either ran away or was enticed away by his relatives."

This shows that the germ plasm had so stamped the descendants of that branch of the family that environment, attractive though it was, failed utterly to hold the inherited trait to do evil.

Moses was taken as an infant and brought up in the king's palace; was educated and treated as an Egyptian prince. Yet upon reaching manhood he saw an Egyptian task-maker smite a Hebrew slave. Born a Hebrew and with the ancestral blood of his noble sires coursing through his veins, the forty years of his Egyptian environment faded like a mist; he saw only his Hebrew brother's suffering and he smote the Egyptian task-master to his death. Blood is stronger than environment. In contrast to the Zero family note the Jonathan Edwards family.

"1,394 of his descendants were identified in 1900, of whom 295 were college graduates; 13 presidents of our greatest colleges; 65 professors in colleges, besides many principals of other important educational institutions; 60 physicians, many of whom were eminent; 100 and more clergymen, missionaries, or theological professors; 75 were officers in the army and navy; 60 prominent authors and writers, by whom 135 books of merit were written and published and 18 important periodicals edited; 33 American States and several foreign countries, and 92 American cities and many foreign cities, have profited by the beneficent influences of their eminent activity; 100 and more were lawyers, of whom one was our best eminent professor of law; 30 were judges; 80 held public office, of whom one was Vice-President of the United States; 3 were United States Senators; several were governors, members of Congress, framers of State constitutions, mayors of cities, and ministers of foreign courts; one was president of the Pacific Mail Steamship Company; 15 railroads, many banks, insurance companies, and large industrial enterprises have been indebted to their management. Almost if not every department of social progress and of the public weal has felt the impulse of this healthy and long-lived family. It is not known that any one of them was ever convicted of crime."

But, says the critic, your doctrine relieves man of all personal responsibility, and places it upon his ancestors through his inherited traits. The normal man is ever dictator of his own destiny. It is only the abnormal who cannot rise above the fetters of inherited handicap. True it is that those fetters are mighty chains in many instances, but character is made up of the conquest of obstacles, and the man or woman who can conquer inherited moral handicaps comes nearer being a god than he who only develops the good traits handed down to him. The sub-normal man may be absolutely unable to rise above his load of inherited disqualifications, and here is where an enlightened society should lend a hand, instead of administering a kick to an already calloused surface.

How then may we apply to a practical end the knowledge which the study of eugenics gives us?

First, by creating an enlightened public opinion. No law was ever successfully administered which did not follow a definite demand of public opinion, and an enlightened conscience. Hence we should go slow in the enactment of laws looking toward restriction of marriages in too circumscribed lines. At present we have reached a stage of public enlightenment where we can prohibit certain classes from marrying, and receive the support of public opinion, such as the insane, feeble-minded, epileptics, degenerates, confirmed criminals, sexual perverts, and habitual alcoholics. We can hold in abeyance marriage permission in such cases as the syphilitic gonorrheaic, the tubercular, and paralytic. We can demand a reasonable clean bill of health in all marriages. But, far better, we can continue in season and out of season a campaign of education until it will become as natural for young people in selecting life partners to exercise the same caution based upon physical and moral fitness, as it now is for them to select partners of sound mind.

Royalty rarely marries outside the realm of royalty. Jews rarely marry Christians. Catholics seldom marry Protestants. Yet they are all in one society, all intermix freely. Early education has influenced the mind of the youth so indelibly with certain facts, that the seeker for a partner finds no attraction with one of another creed or sect.

Just so would education in eugenics impress itself upon the youth of the next generation, that physical weakness, superficiality of mind, tainted family history, the exhibition of traits of moral obliquity, or the slightest evidence of a personal disease would so turn the mind of the seeker or the sought that love could not find lodgement.

In summing up, therefore, we are forced to the conclusion

that in the law of heredity lies the future hope of a nation of normal, sane, healthy, enduring, moral beings, provided that we make intelligent and persistent application of those laws.

HEREDITY.*

By Conrad Wesselhoeft, 2nd, M.D.

The subject of heredity has been studied by scientists for almost a century, but the subject of eugenics is practically just awakening. One might almost say that the study of heredity has led to the study of eugenics. Heredity defined is the "organic or genetic relation between successive generations," and inheritance means "all that the organism is or has to start with in virtue of its hereditary relation to parents and ancestors." "By a congenital character we mean one demonstrable at birth, which is not necessarily germinal, being often due to peculiarities, e. g. infection, poisoning or mechanical injury during prenatal development."

The subject of heredity is so intimately connected with certain fundamental problems of biology that we must turn for a moment to a consideration of the living cell and sexual reproduction.

Life itself depends upon the interactivities and interrelations of an indefinite number of complex substances, that is, the coördination of these substances chemically and physically, and none of these by itself can be termed living. In the same way we cannot turn to any part of a living cell and say that it is the vital centre. The conception of protoplasm is hypothetical.

In the same way it must be understood that a germ plasm is hypothetical. Here again we cannot say that this or that portion is the essential substance in reproduction, even though we assume that the physical basis of germ plasm apparently lies in the stainable nuclear bodies or chromosomes. Accordingly we must hesitate in stating that this or that part of germinal matter is the exclusive vehicle of hereditary qualities.

In most animals there is considerable difference between the ovum and the spermatozoön, the former being relatively large, passive and laden with yolk, while the latter is relatively minute,—in some cases it is less than a millionth as large,—adapted to active locomotion and is without reserve material.

Let us review as briefly as possible what happens when the two unite, in order to prove our theorem that all the parts of germ plasm work coördinately, and to appreciate so far as possible the role of the various constituents of the germ cells. I

---

* Read before the Alethean Club of Boston, March 14, 1913.

quote from J. A. Thomson. "When a spermatozoön, outstripping its fellows (for there are usually very large numbers), reaches an ovum and bores its way into it, the cytoplasmic flagellum is left behind, having performed its function, and the sperm-nucleus and the ovum-nucleus move towards one another. By a rapid change in the periphery of the ovum, the enveloping membrane becomes firmer, and the ovum becomes non-receptive to other spermatozoa. When several effect entrance at once, abnormalities usually result. In the mature ovum there is no centrosome. It was originally present, it disappears. The spermatozoön, however, introduces, along with its nucleus, its centrosome, and this divides into two. The two centrosomes appear to take an active part in the approximation and intimate apposition of the maternal and paternal chromosomes, and in their subsequent partition between the first two daughters cells....As the ovum is much the larger, it is believed to furnish the initial capital....for the early development of the embryo. From both parents alike comes the inherited organization which has its seat (according to most biologists) in the readily stainable (chromatin) rods of the nuclei. From the father comes....the centrosome which organizes the machinery of division by which the egg splits up, and distributes the dual inheritance equally between the daughter cells."*

From this we may conclude that the cytoplasm and centrosome are essential to the chromatin, and therefore are essential to the inheritance, and any deficiency in any of these factors would be exhibited in the inheritance of the fertilized egg-cell. But we may also assume that, providing the centrosome and cytoplasm are not deficient, the germ nuclei are the bearers of the hereditary qualites. This is borne out, at least in lower animals, by an ingenious experiment of Boveri who "fertilized the enucleated egg fragments of one species of sea urchin with spermatozoa of another species, and obtained dwarf larvæ which showed, except as regards size, the paternal characters only."

Before leaving this part of our subject it will be well to recall to your minds that "every species of plant or animal has a fixed number of chromosomes, which regularly recurs in the division of all of its cells, and in all forms arising by sexual reproduction the number is even.† But "there is a reduction of the number of chromosomes in the ultimate germ cells, to one-half the number characteristic of the somatic cells," so that by their union the characteristic number is resumed in the offspring. The number of chromosomes in the shark, for instance, is thirty-six, in the ascaris four, while in man, pig, ox and onion the number is sixteen. This seem-

* Thomson, J. A. Heredity, 1908, p. 49.
† E. B. Wilson. Heredity, 1900, p. 67.

ingly revolting comparison only goes to show that we have much more to learn about the intricate structure of the chromatin rods. Suffice it to say that our imagination is sufficiently taxed when we assert, as we must, that our inheritance is condensed into a germ cell.

Inheritance is in a certain sense not dual but multiple, for we have to consider the transmission of ancestral characters which may not be exhibited in the immediate parents. Consequently, as no two parents are entirely equal,—a fact which becomes more and more apparent the higher we go in the animal kingdom,—each generation is a new creation. This may be carried still further, for no two germ cells of the same parent can be said to be entirely equal; hence the difference in brothers and sisters in the same litter. Moreover, twins resulting from the union of two spermatozoa with one ovum are by no means exactly the same. Therefore we may say that each new offspring is unto itself a new creation.

This brings us to two great problems, Variation and Evolution. Variation as we have already implied is constant. Evolution, which is the result of variation, is also constant. The "struggle for existence" and the "survival of the fittest" does not take place merely between different species, but, as Lankester points out, "between individuals of the same species, brothers, sisters and cousins." To quote from Saleeby, "A living creature survives in proportion as it fits its environment—the physical environment in the case of vegetables and the lower animals, the physical, social, intellectual and moral environment in the case of man."

Variation and inheritance are not separate but are in a certain sense one and the same thing. Variation is of germinal origin, is endogenous and is transmissible. Whether the offspring takes after the father or the mother in respect to particular characteristics depends on the corresponding potentialities inherent in the respective germ cells. These potentialities are best expressed by the terms "dominant," "recessive" and blending characters.

The progeny of a pair may exhibit exclusively paternal or maternal characters, but that both are present will invariably be shown in the later generations. The progeny may therefore resemble a grandparent or ancestor. When a character is transmitted to the first generation it is said to be dominant, "but when it remains latent only to appear in some future generation it is said to be recessive. This is illustrated by Mendelian inheritance which occurs in certain plants and animals: Here the offspring are exclusively of one of the parental types, as regards one or more unit characters, that is, the dominant characters alone find expres-

sion. But if these "hybrids" are inbred, we get a reappearance of "pure dominants," and "pure recessive" types, and a certain percentage of "impure dominants" or hybrids. Moreover if the process be continued the ratio of these three varieties of offspring will throughout approximate the formula of one pure dominant; two impure dominants; one pure recessive.

Certain variations may also be described as plus or minus variations. Albinism, for instance, is described as a minus variation due to an incompleteness in inheritance or a lack of certain hereditary qualities. On the other hand, we have augmentations or exaggerations of a character which may be termed plus variations, and are taken advantage of by breeders to produce sheep with long fleece, or "wonder horses" with extraordinary long manes and tails, etc.

Variation may be slight in amount and continuous, or it may be an astonishing step away from the parents and be discontinuous. The result of the latter was called by Darwin a "mutation," and he maintained that such mutations were never capable of reproducing their kind, but we now know of several instances of "mutations" breeding true, a fact which we can to-day explain by Mendel's Law.

The progeny may exhibit "blended inheritance," a term applied when in any given character of the offspring we can detect both maternal and paternal peculiarities. It may be an intimate blend, it may be a blend with preponderance in favor of either parent, or it may be a combination, paternal in some parts, maternal in others. The child of one white and one black parent is a mulatto, and mulattoes inter-marrying breed true. Moreover, the marriage of a mulatto to a white or black again results in a blend. The same thing occurs with the brown bear and the polar bear, the horse and the ass, though in the latter by some unknown phenomenon the offspring are sterile. In rabbits of different size and color the offspring show a blend in the size characters, i. e., the size of the offspring is intermediate, but the colors follow Mendel's law.* Blended inheritance cannot always be prophesied, for we have in man several striking instances where the unexpected occurred. For instance, a negro had by a white woman four sons who were white and seven daughters who were mulatto. Of course, in such cases we cannot be sure of our data. Castle reports an interesting case of the offspring of an albino by a negro, who were negroes, but whose children split into negro and albino types. This is the only striking instance on record of Mendelian phenomena in man, although we have a suspicion of it in the transmission of congenital cataract.

Finally the progeny may be a modification. Now

* Castle, W. E., Heredity. Popular Science Monthly, May, 1910. p. 425.

modification, in contradistinction to variation, is of somatic origin instead of germinal origin, is the direct result of external or environmental influences, i. e., exogenous, and so far as we know at present is not transmissible. During a famine the children are usually congenitally small and rarely reach the size of their parents, though their offspring again will be of normal stature. It is conceivable that toxic, mechanical or functional effects may have a direct effect upon the germ plasm. Hence a modification may arise from lead poisoning in the father. Some part of the spermatozoön has been effected by the poison and is deficient in its hereditary qualities. But we have no statistics showing that the grandchildren inherit this modification. This must not be confused with poisoning of a normal embryo in utero. The latter is an acquired peculiarity or character.

This brings us to the greatly disputed question of the transmission of acquired characters. We may begin by asking whether the sun's rays made the negro, or whether the pigmentation was a variation. Is it not reasonable to infer from our theory of evolution that the pigmentation was a variation which was augmented by breeding, and that its presence made the negro more fit to live in Africa? Can we conceive of structural changes in the body of a parent, induced by environmental influences, which can so specifically affect the reproductive cells that they will become a part of the inheritance of the future generations? And if so what is the modus operandi? The first question asked is, "How can there be progressive evolution if acquired characters are not transmitted.* The answer to this is that "in the supply of germinal variations, whose transmissibility is unquestioned, there is ample raw material for evolution,"† and that if this were responsible for evolution, evolution would have been much more rapid. An acquired character is a "modification," and "modifications" according to our definition are not transmitted. The error too often lies in the mistaking of the reappearance of a modification for transmission of a modification.

One of the arguments brought forward is that when a parent is infected with some microbic disease such as tuberculosis or syphilis the offspring is also infected. In the first place it is impossible to concede that a germ cell, either spermatozoön or ovum, could be invaded by one or more microbes and offer sufficient resistance to enable itself to live long enough to complete fertilization. And even supposing it could do this it would be absurd

* This formed the basis of Lamark's great law of evolution which was defended by Spencer, and assumed occasionally even by Darwin. This theory is now largely discredited, nevertheless, the experiments of Kammerer with toads and salamanders—where characters acquired by increasing the potency of a factor already present were transmitted—has caused a renewal of interest in Lamark's hypothesis. Greggs, L. The Inheritance of Acquired Characteristics. Pop. Sc. Monthly, Jan. 1913. p. 46.

† J. A. Thomson, Heredity, p. 179.

to think of the egg cell ever coming to term. The infection must take place after the organism is well advanced in its uterine life, if the child is to be borne alive. Consequently infection, whether prenatal or post-natal, is never inherited, and when authors distinguish between "acquired" and "hereditary syphilis" they show an ignorance of the first principles of heredity.

Modification by the presence of toxines in the parent is quite another matter. We have clinical evidence to show that when a parent is poisoned by alcohol, lead or opium, structural modifications result, and the children by impaired inheritance show similar structural peculiarities or malformations. This is best illustrated in the effects of lead poisoning on the offspring, as already mentioned, entirely due to the father. For biological evidence we have the experiments cited by Thomson in which H C N, alcohol and nicotin were injected directly into the eggs of fowls, with the result of impaired development and malformations.

As to the transmission of immunity. Active immunity acquired by the reaction of the body to a disease, or passive immunity acquired by the injections of serum are never transmitted from the male parent to his offspring. On the other hand, both active and passive immunity may be obtained in the offspring from the maternal parent. This simply means that the agglutinins, precipitins, anti-bodies or whatever the immunity materially consists in may be filtered through the placenta into the fetal blood. But this is then a congenital immunity, and is in no sense an inherited immunity. It is well-known that some natives are immune to yellow fever. This immunity was not acquired immunity transmitted, but was the survival of those who were by variation born naturally immune, thus making a constitutional variation dominant in the race.

We have seen that infectious diseases are not inherited, and that prenatal infection or poisoning is not directly concerned with inheritance. Have we then any diseases which can be termed heritable? According to Prof. Martius, a disease is an abnormal process injurious to the organism starting from an exogenous cause. According to this definition, then, a disease is always acquired and therefore it cannot be inherited. This by no means precludes the possibility of inheriting a predisposition to a disease. All this applies very well to infectious diseases, nervous diseases such as hysteria and epilepsy and various other processes like malignant tumors, but we find it very difficult to apply this meaning of disease to hæmophilia, for instance. Thomson maintains that this condition is not inherited, but that a peculiarity of the vascular system is inherited, or, to put it negatively, that some part of the normal inheritance is absent. Yet in the same book

he cites the transmission of albinism, which is both a latent defect and a variation. Albinism is not necessarily a disease. Hæmophilia, on the other hand, is a disease, and is both a latent defect and a variation; moreover we have no evidence that it is a process started by some exogenous cause. In fact Martius himself cites hæmophilia as "an indisputable example of a true hereditary disease." Working on the definition generally accepted that "a disease is a departure from the average normal which brings about discomfort to the individual,"* we may conclude that any latent defect, variation or mutation which brings about discomfort to the individual is a disease. As an example of a mutation we have Erb's progressive muscular dystrophy which, of course, is never transmitted. As examples of diseases which are variations and as such inherited we have hæmophilia, myotonia, colour blindness and the hereditary type of achylia gastrica. Hæmophilia and colour blindness occur almost entirely in males, and are transmitted through the daughters to the grandsons. The sons therefore are not afflicted and their posterity remain exempt so far as they are concerned.

We now come to a class of diseases where it is difficult to say whether they are truly inherited diseases or result from exogenous stimuli acting on inherited predispositions. These include otosclerosis, cataract, refractive errors—especially myopia—"transitory albuminuria," cancer, diabetes, obesity, gout, and certain nervous diseases such as "mental weakness," epilepsy and hysteria. It is certain that the predispositions to these diseases at least remain more or less dominant, as is shown by the family histories in clinical data. Eighty per cent of all cases of hysteria give a positive family history in this respect. In diabetes mellitus we get a positive family history in 20 per cent, in epilepsy 35 per cent, and in England we find a positive family history in 90 per cent of cases of gout. This last does not mean much when we consider how often the English physician makes a diagnosis of "irregular gout."

One of the arguments which is brought forth by certain scientists in favor of Lamark's hypothesis of the transmission of acquired characters is found in the experiments of Brown-Sequard. This ingenious yet impetuous physiologist made a partial section of the spinal cord in the dorsal region or cut the sciatic nerve in thousands of guinea pigs. He observed that "the injury was followed after some weeks by a peculiar morbid state of the nervous system, corresponding in some of its features to epilepsy in man; he allowed these morbid animals to breed, and found that the offspring were frequently decrepit, and that a certain number had a

* Martius, Path. Innerer Krankheiten, 1909. p. 327.

tendency to the so-called epilepsy." An analysis of these experiments shows that the destruction of part of the nervous system was never reproduced in the offspring, but the results apparently were. The morbid conditions in the offspring were very diverse, and were often neuroses which Prof. Ziegler has shown are frequently exhibited in guinea pigs kept in captivity. Moreover the "epileptic" fits occurred in the immediate offspring only. The explanation therefore lies either in the effects of the operation on the embryos in utero, in other words these were congenital and not hereditary defects, or that the offspring actually inherited neuroses which were true variations transmitted not only from their immediate parents but from their ancestors and which were displayed by the offspring in mimicking the fits of the parents. In any case the fact that the third generation exhibited no "epilepsy," and that the results of similar experiments by Sommer do not corroborate these, we can no longer claim that the experiments of Brown-Sequard serve to support the doctrine of the inheritance of acquired characters.

Alcoholism is due to an inherited "mental weeakness" which may have found some other expression in the parent or parents, or it may be due to a deficiency of self control acquired by the immoderate use of the drug. The atrocious prescribing of alcohol in continued doses to infants and children by certain physicians, or its administration in the form of patent medicine, is one of the chief ways by which a craving for this drug, or habit, is acquired. Many pediatricians who are achieving fame for decreasing the infant mortality by modified milk are furnishing a large percentage of the future occupants of our sanatoria, almshouses and prisons by their indiscriminate, short-sighted and utterly unscientific prescribing of alcohol as a tonic.

The term telegony is applied to rare cases where an offspring resembles a sire which, though not its father, had previously paired with its mother. A dog breeder will tell you that if a thoroughbred bitch has pups by a mongrel she will not afterwards breed true. Spencer cites the case of a white woman who had intercourse with a negro and later with a white man. The children by the second male showed negro characteristics. The examples of this phenomenon are by no means constant in animals, and so far as man is concerned it is practically unheard of. In the case cited by Spencer we can hardly rely on the veracity of such a woman, as there were probably several candidates for fatherhood of the child, and the real father probably had negro blood. Accordingly the verdict in regard to the occurrence of telegony remains "nonproven," and if it does exist we certainly can offer no satisfactory explanation.

A word as to maternal impressions. J. W. Ballantyne has carefully studied the abundant literature on the subject from the time of Jacob down to the present, and the gist of his conclusions is that they are merely coincidences. It is admitted that shock and distress may have prejudicial effects on the unborn offspring. Examples of this were especially abundant during the siege of Paris and during the Irish famine, but to associate a particular structural defect with a particular mental impression seems far fetched. Here again a modus operandi is difficult to conceive of. This superstition is held chiefly by those who have implicit faith in the Bible, to whom an explanation is superfluous.

The determination of sex is still a much disputed subject. So far as man is concerned statistics show; first, that the proportion of male to female births in Europe is 1060 male to 1000 female; secondly that "the first born child of any mother is more likely to be a male in the proportion of 8—7;" thirdly that there is a preponderance of male births in the Semitic race, and of females in the Negro race. The ovum probably determines the sex of the child. This is borne out by the fact that twins formed by two spermatozoa and one ovum are always of the same sex, and twins formed by two ova and two spermatozoa may be of different sexes, and the proportion of males to females in such twins is the same as the average in all births. In other words the functions of the father are asexual, at least in the determination of the sex of the immediate offspring.* Sex is probably hereditary, i. e., the sex of any fertilized ovum "is determined by the compromise effected between the ancestral contributions that constitute inheritance." The hypothesis that sex is hereditary explains to some extent the constant proportions of the birth rate between the two sexes, and it rules out any theories regarding the preponderating influence of the elder or more vigorous parent.

Among certain peoples the marriage of near kin is prohibited by religious or civil laws. That such inter-marriage is a cause of degeneracy is a relatively modern idea, probably based on the results in certain noble families. On the other hand, there is ample evidence as shown by George Darwin that consanguineous marriages are not in themselves causes of degeneration or of diminished fertility. Saleeby sums up the answer to, "Should cousins marry?" by saying that it depends on the cousins. The good qualities of good stock, the bad qualities of bad stock, are naturally accentuated by such unions."

The development of a man's character depends to a great ex-

* There is, however, a large class of plants and animals where the sex appears to be determined by the spermatozoa (or pollen grains), which are male and female in the proportion of 1 : 1. This simply shows that nature arrives at similar ends by devious and divers ways, that sex has been attained by different paths and is now determined in different modes. Jordan, H. E. Pop. Science Monthly, June 1909, p. 540.

tent upon nourishment, education and surrounding influences, but how the individual reacts to these must largely depend on his inheritance." This is indeed a fatalistic view, but it is the view point arrived at from scientific investigation, a view point sharply contrasted to the arbitrary conclusions so commonly arrived at by the laity and theologists, who rather indolently regard civilized man as "God's domestic animal."

Man can to a certain extent create his environment. He is characterized by his intelligence which has from the first enabled him to survive and flourish in the struggle for existence. And it is the most intelligent who are victorious, provided they have sufficient physical vitality to live. It is the old story of David and Goliath. It is by selection and improved environment that the race of man develops. Man has by no means reached his highest stage of development, and the great problem of eugenics is how to continue or hasten his development.

Darwin in his Descent of Man (1871 P't 1 Chap. V) writes: "We civilized men.....do our utmost to check the process of elimination; we build asylums for the imbecile, the maimed and the sick; we institute poor laws; and our medical men exert their utmost skill to save the life of every one to the last moment..... Thus the weak members of civilized societies propagate their kind. This danger described by Darwin is now being discussed in prolific language by many writers. On the one side is the blind and indiscriminate humanitarian who with a fanatic zeal attempts to alleviate all suffering and to save the unfit especially from death only to allow them to propagate their kind. Nietzsche, on the other hand, disregards the natural sympathy of one man for another, and suggests only that we follow the law of the survival of the fittest. He declares that the high infant mortality is a blessing, and that our charitable institutions are a menace to mankind. In short, he would have us obey nature implicitly. To do this would be losing the one characteristic which raises man above beasts, for as Lankester has ably put it, "man is Nature's insurgent Son." Between Nietzsche and the improvident humanitarian lies the solution of the problem. We must decrease infant mortality and relieve suffering as prompted by our natural instincts, but we must not lose sight of the infallible laws of heredity.

Eugenics, which deals with race improvement through heredity, prompts us to eliminate the worst elements of society by preventing their reproduction; while euthenics which deals with race improvement through environment prompts us to offer the proper environmental stimuli which call forth the best of our native endowments and often develop unsuspected capacities owing to the complexity of our individual inheritance.

THE PRESENT POSITION OF THE SCHOOL HYGIENE MOVEMENT IN ENGLAND.*

By Ralph H. Crowley, M.D.,
Medical Officer, Board of Education, England and Wales.

The rapidity of the growth of the school hygiene movement has been a remarkable phenomenon in nearly all countries. It is hardly too much to say that where its significance has been appreciated it has changed the centre of gravity and profoundly affected the administration of the public health service. In England, some six years ago only, a considerable controversy took place as to whether the school medical service should be a separate *ad hoc* service or whether it should form a branch of the existing public health administration. In the event of the adoption of the latter course it was feared by some of the pioneers of the new movement that this new branch of medical work which opened out such great possibilities would tend to become side-tracked. It was feared, if placed in the hands of men intent upon the more general problems of public health and but little accustomed to deal with those of the character which the new movement was bringing to light, the development of school hygiene, and its peculiar problems would be seriously checked. The school medical service in England forms an integral part of the public health administration of the country and it is not too much to say that so far from this form of administration having led to the relegating of school hygiene to a subsidiary place, the event has shown that the new service, coupled with that dealing with the care of the Infant, has become the pivot around which the administration of public health tends more and more to revolve.

Administration.

The responsibility for carrying out the work of the school medical service is placed upon the 317 local education authorities of England and Wales. Upon each of these has been cast by Parliament in the Education (Administrative Provisions) Act 1907 the *duty* "to provide for the medical inspection of children immediately before or at the time of, or as soon as possible after their admission to a public elementary school, and on such other occasion as the Board of Education direct," and the *power* "to make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of the children educated in Public Elementary Schools."

Upon the passing of the Act a medical department was inaugurated at the Board of Education for England and Wales with Sir George Newman as Chief Medical Officer and through this

* A paper read before the Fourth International School Hygiene Congress, Buffalo, August, 1913.

department the general principles which should guide the local education authorities in doing the work and the lines along which these should find expression were laid down in a series of circulars.*

At the very outset a broad and comprehensive view was taken of the scope of the school medical service and of its relation on the one hand to the existing general educational administration and on the other to the existing general public health service. As at present carried out in England and Wales the work of the school medical service comprises the following branches viz:—

Medical Inspection of the child.
Following up and supervision of children found defective.
Treatment of defective children.
Special schools for physically and mentally defective children.
Provision of school meals.
Physical Exercises and Games.
School Baths and bathing.
Supervision of School Buildings.
The control of Infectious Disease.
Medical Inspection in Secondary Schools.
The teaching of hygiene to teachers and scholars.
Employment of children.
Schools for Mothers.

For the purposes of carrying out the work of the school medical service a "school medical officer" has been appointed by the respective local education authorities in each of the 317 areas. In 252 areas the school medical officer is also the medical officer of health of the district. In the remaining areas in which the School Medical Officer is not the same officer as the Medical Officer of Health arrangements are made in almost all instances to ensure close linking up of the general public health and school medical services. There are throughout the country 597 assistant medical officers, 212 acting as whole-time and 385 as part-time officers. The total number of medical officers is 943, of whom 74 are women medical officers.

The fundamental characteristic of the organization of Medical Inspection in England and Wales is that it is compulsory and universal. The systematic medical inspection of children has been assured throughout the country even in the most remote rural school, and while local education authorities differ in the degree to which they carry the efficiency of the work a minimum, and by no

* Circular 576. Memorandum on Medical Inspection of children in public elementary schools, under section 13 of the Education (Administrative Provisions) Act, 1907.
Circular 582 including a Schedule of Medical Inspection.
Circular 596 dealing in particular with the treatment of school children.
Code of Regulations for Public Elementary Schools.

means a low standard of minimum, is expected of and obtained from all local education authorities alike.

The Board keeps itself informed as to the extent, character and efficiency of the work in each area by the payment of visits of inspection by medical officers of the Board and also by means of the Annual Reports which the school medical officers present to their respective local education authorities and which are forwarded by them to the Board.

Upon these reports are based the Annual Reports of the Board's Chief Medical Officer, which will be found to contain full statements as to the position of the school hygiene movement in England and Wales from year to year.

Medical Inspection.

Under the regulations of the Board of Education for England and Wales arrangements are required to be made by each local education authority for the medical examination of every child in the country on the occasion of the first admission to school and shortly before leaving school. From April 1st 1915 a third and intermediate routine examination will be required at the age of eight years. Already over one-third of the local education authorities have arranged for this intermediate examination.

This routine examination includes a record of important points on the family and personal history of the child and while not professing to be exhaustive is of a thorough character, involving an examination of the height and weight, the special sense organs, the lymphatic system, the heart and lungs etc., and ensures that no pathological condition of importance shall escape detection. The findings are recorded upon a schedule prepared for each child. On the occasions of the visit of the doctor to the school to carry out these routine examinations children of any age presented by the teacher as suffering from some particular defect or picked out by the school medical officer while making a survey of the children in the classes are also examined. The arrangements for medical inspection form an organic part of the general educational system. Medical Inspection is upon school premises and during school hours.

This systematic medical examination of the children forms the foundation upon which is built the whole superstructure of school hygiene.

Following up and Supervision of Children found defective.

It is generally recognized that the medical examination of children in itself would be of comparatively little value unless systematically followed up. This branch of the work technically known as "following up" embraces a definite range of activities

the object of which is to ensure that the child shall receive appropriate treatment.

First and foremost among these agencies is the *school nurse.* In the majority of cases she attends on the occasion of medical inspection and subsequently visits in the home when necessary in order to encourage the parent to obtain treatment, to advise how it may be obtained or to show the parent how to apply such simple remedies as may have been prescribed.

Repeated examinations for uncleanliness are made also on the occasion of periodic visits to the schools when, in particular, the heads of the girls are examined and warning notes sent to the parents if necessary and the cases followed up till satisfactory action has been taken. At the present time 632 school nurses or health visitors have been appointed by 212 local education authorities.

The *school medical officer* himself, on the occasion of subsequent visits to the school, also "follows up" these children found defective, re-examines them and notes what action, if any, has been taken towards the relief or cure of the defect and what is the result of such action.

In some areas, particularly in country areas, a good deal of this work of following up is carried out by *voluntary workers* banded together to form what is known as a "School Care Committee." Children requiring attention are reported by the School Medical Officer to the Committee whose members undertake to visit the homes where necessary and endeavor to obtain on the part of the mother such attention as has been recommended by the medical officer. There are upwards of 1,000 such Committees in London alone and large numbers throughout the country.

And, lastly, use is made in some districts, for the purposes of following up, of the *school attendance officers* but generally speaking their time is already sufficiently occupied with purely school attendance problems.

Treatment.

Through these several agencies an endeavor is made to ensure that the school medical officer has cognizance of and supervision over all children of school age found defective whether in attendance or not in attendance at school.

It has been the aim of the Board of Education for England and Wales in their circulars to local education authorities relating to the school medical service to emphasize the need for taking a broad view of the meaning of treatment. Thus they have urged that the adaption of school conditions and the school curriculum, establishment of open air recovery schools, the provision of school meals, arrangements for physical exercises and school baths re-

quire to be viewed in the light of treatment as well as the more direct measures adopted for the cure or relief of some specific defect, as for example the removal of adenoids and enlarged tonsils by surgical operation or the prescription of glasses for defective eyesight.

The agencies available for treatment in its more restricted sense may be summarized as follows:—

1. The private practitioner.
2. The voluntary hospital and infirmary.
3. The Poor Law.
4. The School Clinic.

Treatment under the English Poor Law through the agency of the local Boards of Guardians is, speaking generally and for reasons into which I need not enter, in practice not used.

For some children and for certain ailments the services of the private practitioner are available. Due however in part to the fact that many parents are unable to pay the cost of adequate treatment, in part too, owing to the circumstance that many practitioners do not undertake special forms of treatment, as for example the correction of defective vision, the X-ray treatment of ringworm or the operative treatment of adenoids, and in part again because associated with treatment by the private practitioner there are usually no systematic arrangements for obtaining the services of a nurse, it is found by experience that reliance cannot be placed upon obtaining treatment from this source in a large number, indeed in the majority of cases.

Many children receive treatment through the agency of the voluntary hospital or infirmary. Speaking generally, however, these institutions are suitable for the more serious cases of illness and especially for cases requiring operative treatment.

Experience has shown, therefore, that in most areas there are difficulties in the way of many children receiving prompt systematic and adequate treatment for the ailments discovered, and the need has arisen for further provision more intimately associated with the education and school medical services. To meet this requirement the school clinic has been instituted in a considerable number of areas.

The School Clinic.

In England the school clinic has developed on two lines. First it forms a centre for "following up" where the School Medical Officer may examine more fully children referred by himself for more detailed examination or sent by teachers, nurses, school attendance officers or members of Care Committees or brought by the parents themselves.

But the clinic is used for the purposes of *trcatment* also and in

particular for the treatment of one or another or all of the following conditions, viz:—

1. Minor ailments including the common and often contagious affections of the skin of all kinds such as impetigo and eczema and pustular conditions generally, the lesions associated with pediculosis of the body and head, scabies and ringworm, the simpler forms of external eye disease such as blepharitis, hordeolum and conjunctivitis; otorrhoea.
2. Defective Vision.
3. Defective Hearing.
4. Ringworm by X-rays.
5. Adenoids and enlarged tonsils.
6. Dental defect and disease.

At the present time in a large number of education areas Inspection Clinics have been arranged. Ninety-five authorities have established Treatment Clinics, 38 authorities are treating ringworm by means of X-rays and in 58 areas dental clinics have been established. Speaking generally the operative treatment of adenoids and tonsils is carried out at existing hospitals and infirmaries, but a few authorities have themselves established or are about to establish clinics for this work. In a few centres there is being added also provision for treatment by means of remedial exercises.

Experience has shown how great are the advantages if treatment is to be promptly secured and effectively carried through that it should be, so far as possible, carried on as an integral part of the school medical service. The conception taken of treatment in the past as a single act with but little relation to subsequent action or to associated lines of treatment has led to inefficiency and to ineffectiveness of result. Thus the treatment of defective vision by means of glasses requires the services of an oculist who is fully acquainted with school circumstances and requirements. The prescription of glasses for a child who squints is of little value unless the interest and aid of the teacher is invoked in order that the instruction given in connection with the care of the eye may be carefully carried out. The operation for the removal of adenoids and enlarged tonsils again may be rendered largely nugatory owing to failure to see that suitable breathing exercises are subsequently practised. Some children suffering in this way moreover require treatment along other lines, e. g. by the provision of meals or by attendance at an open-air school.

Special Schools for Physically and Mentally Defective Children.

These schools have been established under the Elementary Education (Blind and Deaf Children) Act 1893 and the Elementary Education (Defective and Epileptic Children) Act of 1899 and in-

clude schools for the following groups of children, viz:—blind, deaf, mentally defective, physically defective (principally cripples), epileptics, tuberculous children, delicate children of all types.

The Blind and Deaf Children Act makes it compulsory upon all education authorities to provide educational facilities for all blind and deaf children in their area. The larger local education authorities have established schools of their own, the smaller contribute for the maintenance of their children to Institutions and Homes established by the larger authorities or by private effort. There are in all 40 schools for blind and 51 for deaf children throughout England and Wales providing accommodation for 2400 and 4300 children respectively.

As a result of medical inspection, more especially in the larger centres, attention is being drawn by the school medical officers to the presence in the schools of "partially-sighted" and "hard-of-hearing" children who, though not considered bad enough in the past to justify attendance at a special school are nevertheless unsuited for education given in an ordinary elementary school. Special classes are now being formed for these children in several centres or special provision is being made for their accommodation in the existing schools for the blind and deaf.

Mentally defective children are provided for in both Day and Residential schools. The Act regulating the establishment of such schools is however at present a permissive Act only and although action has been taken under it by most of the larger towns there remains a large number of children in the country for whom special provision is not at present available. 52 Local Education Authorities have established schools under the Act and 106 other Authorities contribute towards the maintenance of their defective children in the schools provided by the above mentioned Authorities or in schools established by private enterprise. There are in all 8 residential schools providing accommodation for approximately 600 children and there is further accommodation for approximately 12,800 children in the 169 day schools.

The important group of children known as the Dull and Backward is now receiving special attention as the result of medical inspection. Children of this group whether the cause of their retardation be in heredity or associated with poor physical development respond to special training and to a curriculum adapted to their needs. Special classes for such children have been started in a few towns and moreover they form a considerable percentage of the children in attendance at the open-air Recovery Schools.

Special schools for crippled children have been established under the 1899 Act in several of the larger cities. There are at present in the country 11 residential schools and 56 day schools

providing accommodation for approximately 800 and 4,400 children respectively. The fact that so many of the children owe their condition to tuberculous disease and the clearer appreciation accordingly of their requirements, is leading to a modification of this type of school which it is now recognized must take on, so far as possible, the form of the open-air school.

There are at present 11 day open-air Recovery Schools for delicate children. These comprise children of the pretuberculous type, children suffering from debility associated with malnutrition, anæmia, lymphatic glandular enlargement, etc.; "nervous" children, including those suffering from milder forms of chorea; children with chronic bronchitis, heart disease, rickets, etc.

Sanatorium schools for children suffering from pulmonary tuberculosis are being established in several parts of the country and in view of the special government grants now available for such schools their number is likely largely to increase in the near future.* A few local education authorities have established also Day Open-Air Schools exclusively for children in the early stages of pulmonary tuberculosis.

There are six Residential Schools reserved for the treatment of epileptic children. They provide accommodation for 488 children most of whom suffer from epilepsy in its severer forms. The provision is at present inadequate. Experience shows that for large numbers of these children attendance at a special residential school followed by colony life is required in the interest both of themselves and of the community.

Provision of Meals.

The Provision of Meals Act authorizing the expenditure of public money on the provision of food to necessitous children was passed in 1906. The general administration of the Act as in the case of that regulating medical inspection is entrusted to the Board of Education for England and Wales acting through the medical department. The experience gained in the working of the Act has shown the need for associating the administration of the Act as closely as possible with the school medical service. An endeavor is being made to bring the school medical officer into intimate relation with the selection of the children, the dietary provided and the preparation and serving of the food.†

Physical Exercises.

The administration of this branch of educational work is be-

---

* A grant not exceeding £90 per bed or three-fifths of the cost, whichever is the less, is payable towards the erection of sanatoria for children and a grant not exceeding 50 per cent of the cost per child towards maintenance.

† The total number of meals provided in 1911, (the returns for 1912 being not yet complete) was 16,100,000 at a cost of upwards of £157,000. Of this sum £151,000 was provided by Local Education Authorities and the remainder by voluntary and other means.

ing steadily brought into closer connection with the school medical service. The official syllabus of physical exercises now in use throughout the country has been drawn up by the medical department of the Board of Education for England and Wales which possesses a staff of experts for purposes of inspection in schools and colleges of all grades.

School Baths and Bathing.

This branch of the School Medical Service has not developed to such an extent as in several other countries. Excellent use is, however, made of existing public baths in many towns but the use of these baths is connected more particularly with the teaching of the art of swimming and their use is in considerable measure restricted to older children. It seems likely however that in the near future there will be a fuller recognition of the physical and educational value of school bathing.

In addition to the various towns in which use is made of the existing public swimming baths special spray bath installations have been placed in schools by 20 local education authorities. Such baths form also a feature of the open-air schools in the country and special provision is made for bathing children in most of the schools for mentally and physically defective children.

School Buildings.

The advent of the school medical service is having a considerable influence on the hygiene of the school building. The increased attention which has been drawn in particular to the need for adequate ventilation has led to a reconsideration of the planning of schools. The accepted type until recently has been the central hall with class rooms leading out of it. This had advantages from the point of view of compactness and also in the case of a school heated and ventilated by some form of mechanical means. But such an arrangement does not permit of adequate thorough ventilation of the class room and moreover from the point of view of the use of the central hall for physical exercises or for combined lessons such as singing, or for the purpose of play and organized games the central hall is by no means as convenient as a hall detached from the class rooms. Accordingly the type of school building tends increasingly to the pavilion plan, the class room opening on to a fresh air corridor or on to a veranda. There is no doubt too that the open-air school is reacting in many directions upon the ordinary Elementary School and the buildings are tending to become less formal and elaborate in structure.

Control of Infectious Disease.

The School Medical Service is furnishing a more precise weapon for dealing with the complex questions arising out of the administration of infectious disease than has existed heretofore.

Powers have it is true existed under the Public Health Acts but the School Medical Service has provided further opportunity for dealing more directly with the individual child whether in the school or in the home. Accordingly earlier and more precise knowledge is coming to hand, any steps required can be taken with more promptitude, and a fuller understanding of the part played by the school in the spread of infectious disease is resulting. The utility of the service is shown particularly in the case of measles, a disease for which apparently so little can be done to lessen the incidence, but for which much can be done through the agency of the school nurse and health visitor, by calling at the homes of the children, to encourage the parents to seek medical advice where necessary and to take ordinary hygienic precautions. Active measures of this kind are being taken now by many school medical officers and there is every prospect that the mortality and also the malign after-effects of measles will become materially reduced.

Medical Inspection of Secondary Schools.

The Act of 1907 made medical inspection obligatory in primary or elementary schools only. Nevertheless a considerable number of authorities responsible for the provision of secondary schools have made arrangements for the medical inspection of the scholars. In some instances all the children, unless any objection is raised by the parent, are examined on admission, those with defects being subsequently followed up. In others, scholars are examined who are presented by the head teacher as suffering from some apparent defect.

The Teaching of Hygiene to Teachers and Scholars.

Special syllabuses of instruction in Hygiene, Temperance and Infant Care have been issued by the Board of Education for England and Wales and in 1908-9 Hygiene was introduced for the first time into the list of subjects which students in Training Colleges are required to take for the final examination.

In 1910 the Board issued a Memorandum on the teaching of Infant Care and Management for use in public elementary schools and a number of local education authorities are making a special feature of this branch of hygiene training.

Employment of School Children.

The compulsory medical examination of all children in the country shortly before the date upon which they are expected to leave school, links up very closely the work of the school medical service with the problems of juvenile employment. Many school medical officers are now paying special attention to this problem in its different aspects. Thus in some areas employed school children are kept under supervision by the school medical officer,

in others the certifying factory surgeon is working in association with the school medical officer and the findings of the latter are available for the use of the former. Many school medical officers deal in their reports with the extent to which children work out of school hours and with the effects of such work on the physical and mental condition.*

Schools for Mothers.

The establishment of the school medical service has shown the need for further medical observation and care of children below the age of compulsory school attendance which in England and Wales is fixed at five years. The provision of schools for mothers is at present in its infancy and their establishment is beset with numerous practical difficulties. At the present time there are approximately 100 properly organized schools of this kind which include arrangements for infant consultations, home visiting and educational classes towards the expenses of which the Board are in a position to pay grant. In addition in a number of areas the nucleus of such arrangements exists.

A large number of children are brought under observation in the Babies' Department of the Infants Schools, attendance in the Babies' class being optional between the ages of three and five. Comparatively few children attend these classes at the age of three but in the more industrial centres about one-half of the children between the ages of 4 and 5 attend. On the other hand much is being done in many towns by infant care organization under the medical officer of health to aid and guide parents during the first few months or year of the infant's life. What is needed is some method of effectually bridging the gap between infancy and the age of 4 and 5. This matter is now receiving careful attention and is likely to find solution along existing lines by extending the period of infant care as at present carried out by Health Visitors under the Medical Officer of Health, by developing the schools for mothers and by the establishment, more particularly in the industrial centres, of suitable Nursery Schools.

Relation to Educational Methods.

The establishment of the school medical service is already exercising a considerable influence on educational methods and practice. It has emphasized the need, so far as practicable, of suiting the curriculum to the child and the process of differentiation begun by the Blind and Deaf Children Act of 1893 and the Defective and Epileptic Children Act of 1899 is being carried still further. The establishment of the open-air school of recovery for delicate children, of classes for the dull and backward, for the partially

* The Acts specially affecting juvenile employment are the Factory Acts, the Employment of Children Act, 1903, the Labor Exchange Act, 1909, and the Education (Choice of Employment) Act 1910.

blind and the hard of hearing, for stammering children and children with defective speech are evidences of the recognition of the needs of certain well defined groups of children. But further than this it is becoming recognized that much that is faulty in current educational method and practice is due to a lack of appreciation of the physiological processes involved in the child's physical and mental development. There is here an almost unlimited field for research, and for reform well considered and wisely applied based on the results of such research. A broad foundation is now laid, school medical officers in every part of the country are becoming acqainted at first hand with the facts bearing on the position. Special attention has necessarily and rightly been concentrated on the problems of the physical condition and hygiene of the child and its surroundings. All the time however the School Doctor is becoming trained in the more subtle and the more purely educational problems and there can be but little doubt that the School Medical Service, already bearing fruit in this direction, will in an important degree influence and modify existing educational practice.

Cost of the School Medical Service.

The cost of the School Medical Service has, up to approximately the last two years, been borne entirely by the Local Education Authority for the County, Borough or Urban District as the case may be. For the year ended 31st July, 1912 a grant was paid by the Board of Education for England and Wales out of Imperial funds to Local Education Authorities in aid of expenditures incurred upon following up and medical treatment. This grant has now been further increased and for the year ended 31st July 1913 a grant will be paid by the Board to all local education authorities amounting approximately to one-half of the cost incurred in both medical inspection and medical treatment. In the case of some of the Special Schools an additional grant in aid of treatment has recently been made by the Board and at the present time approximately one-half of the cost of educating a child in a Day Open-air School and approximately one-third of the cost of maintaining a child in a residential Open-air School is borne by the Imperial Exchequer.

The foregoing sketch of the present position of the School Medical Service in this country will show that an endeavor has been made to lay broad the foundations. It has become evident that around the child from infancy upwards must revolve the machinery for the administration of public health. With the adaptation of the conditions of life and the environment generally to the healthful up-bringing of the child will be solved simultaneously and consequently many of the present day problems affecting the adult.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 1-E. Traumatic Neurasthenia.

The patient's early history would seem to show that she was an average normal child of a somewhat nervous and sensitive temperament. Her parents died when she was an infant, and she was adopted and grew up in a pleasant home. She completed her grammar school course at thirteen, then went to business college, and since that time has earned her livelihood by doing clerical work. No history of nervous diseases preceding her accident could be obtained, though she undoubtedly possessed the kind of nervous system that would readily be upset by a shock, *i.e.,* she was sensitive, reticent and quiet.

She says that on November 1, 1911, the car in which she was riding to her work collided with another car, throwing her across to the opposite seat, where she struck the back of her head. She was much dazed, and when she came to a realization of her surroundings she was alone in the car. She groped her way to the door, was helped out by bystanders and assisted to the drug store near by. One-half hour later she walked, with help, to her home. She was in bed for seventeen days, and then up and down for a total of ten weeks or so. She then attempted to return to her work for two or more hours a day. For three months she had sinking spells in the office, when she would fall back limp in her chair and cry out. These attacks would last about half an hour. After three months of perseverence she was able to stay at work the greater part of the day, but she says the quality of her work was poor. She was unable to think clearly and accurately and had to have an assistant. She has been able to keep at work since, but has suffered from headaches, especially occipital, which she did not have before. For some ten months after the accident she slept poorly and dreamed, mostly of the accident. A friend who accompanied her to the office and who has known her for many years, says that the patient has been quite changed temperamentally since the accident, that she is now in perpetual motion and more fearful and irritable. On both occasions of her visit to the office she has been accompanied by a friend because she dreaded to ride on the cars alone, though she forces herself to ride to work each day. While in the office the telephone bell rang, the patient started fearfully and the color came and went in her cheeks, she laughed and swallowed nervously. Patient says that she used to tolerate reproof and criticism normally, but now she has hard work to restrain herself from crying. Her manner during the examination was slightly agitated, fearful and apprehensive. She was alert and anxious, with a nervous smile, her face changing in mo-

ments of repose to a worried expression. She talked freely and seemed anxious to assist in an accurate, satisfactory examination. The patient said she thought she had been much more irritable since the accident, and this is what one would expect in a shock neurosis. As she talked she sat forward in the chair in a tense position, her hands moving nervously in her lap, her feet frequently changing position. She says that she fatigues easily and has been unable to attend places of amusement since the accident, as it takes all of her strength to do her work.

The physical examination shows a young woman about 5 ft. 5 in. in height, weighing 127½ pounds. Skin is soft and moist and slightly sallow. The lungs are negative. Heart sounds normal but somewhat tumultuous. Pulse 80 to 90 and slightly arhythmic. Blood pressure systolic 118. The thyroid gland is slightly enlarged, especially the isthmus. Abdomen not examined. Her posture is poor, the shoulders stooping and the lower abdomen protruding.

Examination of the nervous system shows all the deep and superficial reflexes to be irritable, the knee jerks being especially lively, and the ankles giving a false clonus. It is impossible for her to relax sufficiently to determine the condition of the planter reflex, but there is no reason to suppose that it is abnormal. She can stand erect with eyes closed without swaying, (no Rhombergs) and can walk a straight line with good co-ordination but with evident exertion. The pupils are rather large but react normally to light, accommodation and convergence. The field of vision as determined by the finger-moving test seems normal. There is marked tremor of the closed lids, the whole head shaking slightly. The tongue protrudes in the median line, is somewhat flat and teeth-marked and coated on back. The extended fingers of the left hand are steady, those of the right having very fine tremor.

Deductions.

The symptoms which this presents are almost classical of a traumatic neurosis. Dr. J. J. Thomas in his article on this subject in "Modern Treatment of Nervous and Mental Diseases," edited by White and Jelliffe, the latest thing on this subject says:—"The essential symptoms in the neurasthenic neurosis following accidents are chiefly those of irritability or weakness of the nervous system, in a large sense, and most frequently these are seen as abnormal susceptibility to fatigue, loss of interest and power of mental concentration, often depression, irritability, loss of emotional control, so that the patient cries easily, and occasionally nervous unrest. These are accompanied by more somatic symptoms, such as capricious sleep, terrifying dreams; disturbance of digestion and of appetite; pains, especially backache, and vertigo or frequent headache; and very

frequently the sensation of pressure or strain in the occipital and upper cervical region which patients commonly describe as 'pain at the base of the brain': palpitation of the heart, and sluggish circulation, and more rarely parenthesias of various sorts and locations."

Considering her temperament the patient has developed surprisingly few hysterical symptoms, and has shown a great deal of fortitude and strength of character in the way in which she persisted at her work against such odds. She certainly suffered from a considerable degree of cerebral concussion, following which she had nausea and vomiting for three days, and was unable to be up for nearly three weeks. It is impossible to determine whether the enlarged thyroid which she has existed before the accident or not, but such a condition is not uncommon following fright and shock, and one cannot say whether or not she will later develop exopthalmic goitre. This is a most intractable and unhappy condition, and should be taken into consideration in a legal suit. As yet the enlarged thyroid and some tremor of the hand are the only symptoms of this disease present, but as she normally has rather full eyes, it is difficult to say whether they are more prominent than before the accident. Both friends, questioned on this point, are unable to see any difference. Those who have seen many cases of postural neurosis are quite familiar with the fact that a puffy thyroid gland is a common accompaniment of the disturbed nutrition incident to the contracted lower thorax and the displaced viscera. The whole internal glandular system seems to suffer more or less in these cases.

It seems that the more serious result of this shock is the neurasthenic mental state which is liable to persist for some time.

The patient is suing the responsible company, and it is an interesting question how far her nervousness may be attributed to the anticipation of this suit. Authorities on this subject are now pretty much agreed that most persons are honest and that malingering is, on the whole, rare and easily detected. When the suit is settled the reader shall know the outcome.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

A DIRECTORY THAT DOES NOT DIRECT.

In the beginning was the American Medical Association, and the American Medical Association was with God, and the American Medical Association was God. All medical things were made by the American Medical Association and without the American Medical Association was not anything made that was made. If you do not believe it read the correspondence on the following pages concerning the forthcoming edition of the new Directory to be published by the said American Medical Association.

This creature of the Almighty has set out to issue for the benefit of the medical profession a Directory. It advertises in red ink that said Directory will be the most complete, accurate, and useful Directory ever published since (we naturally assume) the Mosaic account of the creation. In fact, as we read what it will contain and how infallible it will be we conclude that it must be more accurate than the Mosaic account because that was only divinely inspired while this is edited by the American Medical Association.

Unfortunately, the first pin which is stuck into the red ink balloon causes a nasty smell and a collapse. It is complete only according to the publisher's standard of completeness. It is accurate when you accept the premises that only members of the American Medical Association are physicians. All others are sectarian pirps. It is accurate so far as it pertains to the members of the American Medical Association, and it is useful so far as it advertises the American Medical Association. But when it comes to truthfulness it is an Ananias Club with Ananias and Sapphira as President, Vice-President, Secretary and Treasurer all combined, and then it lies some. Kindly note some of its Ananias hereditary factors.

The prospectus reads, (with red ink and fire-crackers) a "Register of legally qualified physicians of the United States and its Dependencies." It then promises every legally qualified physi-

cian whose name appears in this Directory, and who is a member of a State or county society to so designate that fact by a letter or symbol after his name. Will the publishers do it? For answer note the direct question asked the publishers by the Editor of the *Gazette* in the preceding letter, and then note the answer in reply thereto. "We are not compiling a Directory of sectarians." In other words, Mr. legally qualified physician of the homœopathic school, if you are a member of your State Homœopathic Medical Society; which Society is chartered by your State and has a legal existence, and if you are not also a member of the allopathic State society, your name goes down in this wonderful, accurate, complete and useful Directory as a medical "non entity." You are designated in that Directory as not being enough of a doctor to belong to any county or state medical society. To put it plainer and in real Sunday-school language, they have lied about you. Why? Because they will not recognize your State society as having any legal existence!

It is a serious question whether or not the publishers of said Directory are not seeking to obtain money under false pretenses when they advertise positively to give certain definite information concerning the physicians therein registered and then fail absolutely to keep their agreement. Note this paragraph in their printed prospectus (More red ink).

"To Business Men. The new edition will appeal to business men because it will be a Blue Book (with red ink) of the Medical Profession; because they can select the physicians they wish to reach and be certain these are interested in the specialty stated; because there are no duplicate names; *because it contains a list of members of County Societies and State Associations.*" They do not qualify that statement and say "sectarian state societies excepted." They put it positive and thereby make themselves actionable for deliberate and intentional fraud. The only excuse which they can possibly render for not designating homœopathic physicians as members of State and county societies is their arrogant position that we did not belong to the medical profession, but are sectarian.

While this editorial places the emphasis only upon one of the many deceptive statements put forthwith by this complete (?) Directory, there are a host of others; such as their promise to publish the date of organization, the names of officers of all state and national societies, and then ignore absolutely all homœopathic societies. Again they promise to give full and accurate information concerning all medical journals and then refused to make any mention of the homœopathic journals even the official organ of the American Institute. They further promised to designate by

letter or character the names of men who are members of national special societies but refuse to recognize any national homœopathic special society such as the Surgical and Gynecological Association, the Obstetrical Society, and the O. O. & L. Society.

Had the publishers of this Directory plainly and honestly said that no physicians except members of the American Medical Association would receive any designation as to membership in county, state and special national societies; that no journals would be mentioned excepting those recognized by the divine American Medical Association, we could have had some degree of respect for them; but when after being cornered by a direct question, they make the pitiable spectacle of dodging under the answer "We are not compiling a Directory of sectarians" we can have nothing but the utmost contempt for them.

It must appear to any broad-minded thinker that the attitude taken by the publishers of this Directory does more to foster sectarianism than anything which we can possibly imagine. In fact, the entire American Medical Association policy is that of sectarianism in that they refuse to recognize anything in medicine which does not emanate from and is endorsed by their own ranks. Homœopathy with its belief in a scientific method of drug selection, does not begin to be the self-limited, high-walled, sectarian body which this same American Medical Association is.

Now, Mr. Homœopath, what are you going to do about it? This is one of the straws which we must add to the camel's back, and we cannot afford to omit any opportunity to load them on whenever we get such unmistakable evidence of old school arrogance. We have started out on a campaign of militancy and we do not propose to have our rights abrogated in any instance wherein we are capable of maintaining them.

If this is a Directory purporting to be published in the interests of the profession at large, and is offered to the profession at large for sale with the distinct understanding that it gives certain definite advertised information, then it becomes us, as men, to demand that we have in that Directory all the recognition which any physician, whether a member of the American Medical Association or not, is entitled to.

It is earnestly desired that every homœopathic physician, who is a member of his respective State society, whether he has filled out the blank for his name insertion in the Directory or not, write to the Directory Department of the American Medical Association, 535 Dearborn Ave., Chicago, demanding that if his name appears at all in the Directory it shall appear as a member of his homœopathic State society. One thing more;—if you receive an answer thereto kindly forward it to us,—editors of the New England Medical Gazette.

AN INTERESTING CONTRIBUTION AND SOME CORRESPONDENCE THERETO.

Our attention was recently called to the forthcoming edition of the Medical Directory published by the American Medical Association, by the following article from the pen of Dr. J. P. Rand. Out of courtesy to the publishers of said Directory we postponed publishing the communication until we could ascertain further concerning the treatment of physicians of the homœopathic school. A letter written by the Editor of the New England Medical Gazette to the Secretary of the American Medical Association and his reply thereto make it painfully evident that the boasted "completeness, accuracy, utility, and high ideals" of said Directory are all a delusion and snare so far as it pertains to any physician who is not a member of that one single creation of the Almighty, the American Medical Association.

To the Editor of the "Gazette":

We are all familiar with the methods employed by certain itinerant physicians who advertise their skill (?) by promising to tell any patient all about himself and the myriad diseases with which he is afflicted "without asking a single question."

I am strongly reminded of such occult methods by reading the circular sent out by the American Medical Association soliciting names and subscriptions for the new (4th) edition of its Medical Directory which is about to be published. They seem to have caught the spirit of mysticism which enables them to tell us "all that ever we did" with little or no assistance upon our part.

The Directory purports to be: "A Register of legally qualified physicians of the United States and its Dependencies, also Canada and Newfoundland. It will contain a list of physicians arranged alphabetically under towns, also a general alphabetical index," giving "Date of birth, Medical College, Year of graduation, Year of license, Membership in County Society, Membership in State Association, Fellowship and Membership in American Medical Association, Address and office hours, Teaching positions, Membership in Special Societies, Specialties practiced;" of which fourteen are listed. It will also contain a "Key" to abbreviations, symbols, etc., which states that "Names in capitals signify membership in County Society, State Association, and American Medical Association. A cross enclosed in a circle (x) represents membership in the American Medical Association. "H" that the physician is a Homœopath; "E" an Eclectic, "P-M" Physiomedic, etc.

All of these things appear so full and fair and *free* ("No charge of any kind is made for inserting this information") it seems as if the entire medical profession, regardless of schools, would get

into the waiting line to make their names immortal in print, and doubtless most of them will.

The "Key to the Abbreviations" indicates distinctly that every physician whose name is recorded has had a full and fair chance to be rightly classed. The inference is unmistakable that every homœopathic, eclectic, or physiomedic physician will appear as such in this Directory, and if he fails to do so it will be from his own volition or neglect. There is no suggestion to the contrary anywhere in the circular of information; but what about the question blanks, or some of the question blanks, sent out? I have before me "Form B." which reads as follows: "Name..... City and State..... Residence..... Office.....St., Office Hours .....(a) I give SPECIAL ATTENTION (not exclusively) to ..... (b) My PRACTICE IS LIMITED exclusively to..... (c) GENERAL PRACTICE.....Former Address..... (since Jan. 1, 1912.)"

No question is asked as to what college you graduated from, what medical societies you belong to or with what school of practice you are affiliated; in short, of the sixteen items of information promised in the circular, "Form B" furnishes opportunity to answer practically but three, viz., name and business address, office hours, and specialty practiced, which last would seem to be published simply for advertising purposes. All the rest of the information promised, and some of it very personal in character, must come, if it comes at all, either from the archives or imagination of the publishers, and God only knows which.

I am speaking on the supposition that "Form B." which lies before me, is the one and only form supplied to the profession. It is surely the only form I have had an opportunity to see or answer, and if others have been issued and sent out to "privileged members" asking for more specific and complete information than this calls for, the fact would show an invidious discrimination upon the part of the publishers which ought to be investigated. But supposing that this great Directory of the American Medical Association made up from data obtained from "Form B." the result must inevitably be (and it looks as if just this result was intended) a complete and satisfactory record of the physicians affiliated with the American Medical Association and a very incomplete and distorted record of every one else.

How many homœopathic or eclectic physicians, for example, will appear as such in this new Directory of 150,000 names compiled under the returns from "Form B" when they have had no invitation or chance to say one word in regard to their medical affiliations or beliefs? And if their names fail to appear "Homœopaths" and "Eclectics," what follows? They are simply proclaimed

to the public as having no affiliation with the schools to which they rightfully belong, and the Directory of the American Medical Association will be used to prove it.

I am making no charge of treachery on the part of the publishers of this Directory towards the subordinate schools of medicine, nor is it necessary; they, of course, know why "Form B" was gotten up as it was and why it was sent to certain physicians! They know why the name of no homœopathic or eclectic society, devoted to surgery and gynecology, appears among the twenty-five special societies in "Class A Societies" which is listed in their circular, and they of course know why they act as if they wished to wipe the name of every homœopathic and eclectic institution out of existence. We know it, too, and, strange to say, object.

But to return to the subject of this new Directory which promises such a mass of varied information, in regard to each physician whose name is included, and then sends, to many of us at least, for reply only a "return postal" that asks for practically nothing but the "address" and "specialty" of the receiver, what are we forced to conclude? Simply this; that the publishers do not wish to know the medical affiliations of any physician who is not a member of the American Medical Association, or to give any such information in regard to him in their report. Their methods for obtaining facts are akin to those of the itinerant "specialist" already referred to, who makes his "diagnosis, without asking a single question" and their Directory, when completed, will be about as trustworthy in many respects.

Respectfully submitted,

J. P. Rand.

LETTER FROM THE A. M. A.

Dear Dr. Wilcox:—

This letter is sent to a selected list of the Fellows of the American Medical Association. It is intended as a personal letter to interest you in the Fourth Edition (1914) of the American Medical Directory.

More than 12,000 names including recent graduates and licensees will be added to the new directory. Many thousand changes of location and society affiliations will have been made. Other directories give only the name, college and date of graduation of 90 per cent of the physicians listed. Do you realize that the amount of data we give about every physician equals, and in some cases, exceeds paid personal write-ups in other directories? No other medical directory gives the age, license, membership in County, State and National Association.

The Fourth Edition will indicate whether you limit your practice to a specialty, whether you give special attention to one particular branch, or whether you are in general practice. These data will be the leading new features of the Directory. If you have not supplied this information be sure to indicate it on the enclosed return card.

Neither labor nor expense is being spared to make the new directory accurate and complete. This book is issued for purely altruistic purposes and

is a part of the Association's work in its effort to improve the standards of medical education and licensure. Therefore, as the greatest good can be accomplished by the widest circulation of the information contained in this book, your support and patronage is earnestly requested, especially when it is justified by the accuracy and completeness of everything that goes to make up a directory.

May we not have your support? If so, please let us hear from you at once; this edition will be limited and it is important that we know approximately how many copies to print. We enclose an order form for your convenience.

Yours very truly,
AMERICAN MEDICAL ASSOCIATION.
(Signed) George H. Simmons,
General Manager.

January 15, 1914.

Dr. George H. Simmons,
American Medical Association,
535 N. Dearborn St.,
Chicago, Ill.

Dear Dr. Simmons:

Your circular letter pertaining to the Directory of the A. M. A., at hand. Before signing the card for an order, I want a little further information. Your prospectus dwells at length upon the completeness of the proposed Fourth Edition.

On page 6 (prospectus) you list twenty-five societies whose members are surgeons, gynecologists, or obstetricians, and which members' names will appear in separate groups in their respective States; the object being, no doubt, to emphasize such specialists. If your object is to make a *complete* directory, why do you not include in the said society list the names of the Surgical and Gynecological Society and the Obstetrical Society of the American Institute of Homœopathy? Both are national societies and contain men quite as eminent as those of your listed societies.

Again you say (page 7), "Lists of members of National and Local Special Medical Societies will also appear in this edition." Will the names of any physicians appear as members of the American Institute of Homœopathy:—a national organization, containing over three thousand members and in a very healthy state of activity?

You say that the Fourth Edition will give the names, date of organization, place of meeting, and names of officers of special societies in the United States. You do not say you will give *all* such societies, but the inference is that such is your intention. Will the promised *complete* Fourth Edition mention the names of *one* special homœopathic society, place of meeting, or names of officers? If not, why not? Their membership is composed of registered licensed physicians. Their societies are well attended. They discuss medical topics of general interest. On the same page you promise that the American Medical Directory will contain information about medical journals. Will it mention one or any number of journals edited by homœopathic physicians? Will it even mention the Journal of the American Institute of Homœopathy, which is the organ of a national medical body?

You mention in red ink, as a further inducement to the profession to purchase the Directory, that you will state whether physicians are members of their respective State and County societies. Does that mean that you will utterly ignore the existence of state and county homœopathic societies? Does it mean that if Dr. Smith is a member in good standing in his State homœopathic society, which has a legal standing in his State, that his name will appear in the Directory as not being a member of *any* State society, because not a member of the old school State society? In other words, does your arrogance as publisher of a general directory for the information of the profession at large assume that there can be no State medical societies except those composed of old school men?

On page one, surrounded by deep lines and arrowed "Doctor read carefully," is a paragraph which dilates effusively on the completeness of the proposed Fourth Edition, by promising to mention the specialty of every practitioner. Then sixteen sample specialties are mentioned, even including the "actinologist." But I find no mention made of the specialist in homœopathic therapeutics. Now, my dear Mr. Editor, I know you are a busy man and you may have overlooked the fact that there are in the United States some ten thousand specialists in homœopathic therapeutics; men registered, qualified, licensed, respectable, even human; who are administering remedies to their patients after a scientific law. I do not know how many actinologists or urologists there are who will be especially favored in your *complete* directory by having the letters "R" and "U" after their name, but it is dollars to doughnuts there are not ten thousand of them and even if there were, would they be more scientific physicians than the ten thousand specialists in homœopathic therapeutics?

In your Second and Third Editions you asked for information concerning the school of practice, and designated the homœopathic physician with an "H." In this blank you make no such request. Is it to be assumed that because a physician in filling out the blank and making no mention of the fact that he is a homœopath (because you do not ask for such), is to be counted as an old school physician? Is it intentional or an oversight that he was not so asked? What was your object in omitting that information?

You state in your letter to me that the work is purely altruistic, but exceedingly accurate and complete. How accurate would a city directory be which gave full information concerning every Protestant mentioned, but a garbled information regarding every Catholic; which claimed to mention every church in the city but mentioned only the Protestant church, and remained silent regarding all Catholic churches and institutions; and all this because the publisher was a Protestant? Then consider the arrogance of that publisher, were he to go to every Catholic in the city and beg him to buy the directory because it was so complete, so up-to-date, and so "altruistic in its purpose."

I am asking all this for the benefit of the readers of the *New England Medical Gazette* as well as for the homœopathic physicians generally in the country.

Yours truly,
(Signed) DeWitt G. Wilcox.

Dr. DeWitt G. Wilcox,
419 Boylston St.,
Boston, Mass.

Dear Doctor:—

Your letter of the 15th inst., has been received. Accepting your comparison, we are listing neither "Protestants" nor "Catholics," but the medical profession. We are not compiling a directory of sectarians,—Allopaths, Homœopaths, Eclectics, Physio-Medics, Osteopaths, Chiropractors, Neuropaths, Christian Science Healers, Faith Healers, or any sect,—but of physicians, noting after each name certain facts and indicating by type and symbol whatever allegiance the individual holds to the American Medical Association, the publishers of the Directory.

Yours very truly,
Directory Department,
AMERICAN MEDICAL ASSOCIATION,
By F. V. C.

BOOK REVIEWS.

Elements of Water Bacteriology with special reference to Sanitary Water Analysis by Samuel Cote Prescott, Associate Professor of Industrial Microbiology in the Massachusetts Institute of Technology, and Charles Edward Amory Winslow, Associate Professor of Biology, College of the City of New York. Third edition rewritten. Published by John Wiley & Sons, Inc. New York.

This little book of 318 pages is especially written for students, health officers and those interested in the methods of determining the purity of water and its relation to health. The extreme importance of the subject and the authoritative source from whence the book comes, makes it essential to all workers of this field. It is terse and well sub-headed, and abounds in simple practical tests given in sufficient detail to be easily carried out by one familiar with laboratory methods and bacteriology.

Its twelve chapters are: 1. The Bacteria of Natural Water. 2. The Quantitative Bacteriological Examination of Water. 3. The Interpretation of the Quantitative Bacteriological Examination. 4. Determination of the number of Organisms Developing at the body Temperature. 5. The Isolation of Specific Pathogenes from Water. 6. The Colon Group of Bacilli and Methods for their Isolation. 7. Significance of the Presence of the Colon Group in Water. 8. Varieties of Colon Bacilli and their special significance. 9. Other Bacteria. 10. The Significance and Applicability of the Bacteriological Examination. 11. Bacteriology of Sewage and Sewage effluents. 12. Bacteriological Examination of Shellfish.

There is an Appendix containing details of laboratory technic, culture media, etc., an extensive bibliography and a good index. The printing, type and binding are good.

The Compleat Angler, or The Contemplative Man's Recreation: being a Discourse of Fish and Fishing not unworthy the perusal of most Anglers: by Izaak Walton. With illustrations by James Thorpe. Hodder & Stoughton, New York & London. Price $2.00 net.

Few men know better how to enjoy and appreciate to the full, a vacation, than the medical man. The necessity of keeping every faculty alert in the pursuance of his professional duties tends to make him a good sportsman. Given a keen eye and steady hand with a goodly sense of courage and perseverance and you have the embryonic making of the "all around" sportsman.

But, after all the sports are discussed and each lauded to its just deserts, what is there that can "put it over" angling? Surely nothing from the view point of the angler, and after the day's sport is finished, what is better than to talk it over and feel again the tug at the line! And who can tell it all so vividly and with such good relish as could Izaak Walton? Cannot we all say "amen" to the following:

"No life, my honest Scholar, no life so happy and so pleasant, as the life of a well-governed Angler; for when the Lawyer is swallowed up with business, and the Statesman is preventing or contriving plots, then we sit on cowslip-banks, hear the birds sing, and possess ourselves in as much quietness as these silent silver streams, which we now see glide so quietly by us. Indeed, my good Scholar, we may say of Angling, as Dr. Boteler said of Strawberries; 'Doubtless God could have made a better berry, but doubtless God never did'; and so, if I might be judge, 'God never did make a more calm, quiet, innocent recreation, than Angling!

"I'll tell you, Scholar, when I sat last on this primrose-bank, and looked down these Meadows, I thought of them as Charles the Emperor did of the city of Florence: 'That they were too pleasant to be looked on, but only on holidays.'"

The book is the gem of the bookmaker's art. The illustrations are well executed and the print perfect.

Diseases of the Nervous System For the General Practitioner and Student, by Alfred Gordon, A.M., M.D. (Paris) Late Associate in Nervous and Mental Diseases, Jefferson Medical College; Late Examiner of the Insane, Philadelphia General Hospital; Neurologist to Mount Sinai Hospital, to North-Western General Hospital and to The Douglass Memorial Hospital; Member of The American Neurological Association; Fellow of The College of Physicians of Philadelphia; Corresponding Member of Société Médico-Psychologique De Paris, France; Member of The American Institute of Criminal Law and Criminology, etc. Second edition, revised and enlarged with one hundred and sixty-nine illustrations. Price, $4.00 net. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut St. 1913.

The second edition of this work is even more satisfactory than the first. Some six chapters are added which give it a completeness not apparent in the first edition. These chapters are: Fractures of the Skull, Concussion of the Brain, Lumbar Puncture, Cerebro-spinal Fluid, Wassermann Reaction, Radiculitis and Psychoanalysis.

In considering concussion of the brain the author seems too much inclined to regard it as a distinct entity and not more or less as an accompaniment of contusion and compression. Doubtless there is always some concussion in both compression and contusion, and the drawing of a distinct border line around any one of them is likely to lead to an error which may be fatal.

Taking it all in all the book is well written and distinctly enlightening upon the subjects mentioned. It is not so exhaustive as to render it unfit for a ready reference book nor is it at all lacking in the essentials, namely: the diagnosis, and treatment of the diseases of the nervous system.

Gould and Pyle's Pocket Cyclopedia of Medicine and Surgery. Based upon the second edition of Gould and Pyle's Cyclopedia of Practical Medicine and Surgery. Second edition revised, enlarged and edited by R. J. E. Scott, M.A., B.C.L., M.D. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price $1.00 net.

To those who are familiar with the first edition of this very complete and ready little reference book, no further mention of its virtues is necessary. To those unfamiliar it can justly be said that for compactness in form, accuracy in definitions, and terseness in description, it has few equals. The busy man can carry in his pocket a cyclopedia of medicine and surgery which will give him an adequate description, including the etiology, symptoms, diagnosis and treatment of all medical and surgical disorders, not excepting the specialties.

A Compend of Diseases of the Skin by Jay F. Schamberg, A.B., M.D. Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine. Fellow of the College of Physicians of Philadelphia. Fifth edition revised and enlarged. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price $1.00.

The medical profession generally is so familiar with Blakiston's Quiz Compends that this one in particular scarcely needs specific mention. Like all of the Compends put out by this publishing house, it covers the subject matter in hand very thoroughly.

Any work on skin diseases is but half complete without illustrations, and this work, condensed as it is, has a liberal allowance of good illustrations.

The effort of the author has been to present the subject of skin diseases in a succinct, lucid and readable form for both the student and practitioner.

The subject of syphilis has been treated with the newer views recently brought out concerning this all too prevalent disease.

Genito-Urinary Diseases and Syphilis—By Edgar G. Ballenger, M.D., Adjunct Clinical Professor of Genito-Urinary Diseases, Atlanta Medical College; Editor Journal-Record of Medicine; Urologist to Westley Memorial Hospital; Genito-Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to Hospital for Nervous Diseases, etc., Atlanta, Ga.,

assisted by Omar F. Elder, M.D. The Wassermann Reaction by Edgar Paullin, M.D. Second edition revised. 527 pages with 109 illustrations and 5 colored plates. Price $5.00 net. E. W. Allen & Co., Atlanta, Ga.

No recent work on genito-urinary diseases which fails to include the abortive treatment of gonorrhea, vaccine therapy, Rowntree and Geraghty's test for functional activity, pyelography, the Wassermann reaction and luetin test and the cultivation of the spirochæta pallida together with the salvarsan and neosalvarsan treatment, is a very satisfactory work to possess if one wishes to use it to obtain the best results in treating his patients suffering with genito-urinary diseases. This work includes many interesting chapters on all these subjects.

The author's chapter on the "sealing in" abortive treatment of "beginning gonorrhea" is exceedingly instructive, as it shows from a large number of cases treated nearly ninety per cent of cures. He bases his statement upon some forty-five hundred treatments given.

The rigid tests recommended for determining whether or not gonorrhea has been cured in the male are worthy of adoption by all physicians treating venereal diseases.

REVIEWS OF MEDICAL JOURNALS.

The Medical Advance. December, 1913.

1. *A Student of Homœopathic Materia Medica.* G. A. Almfelt, M.D.

A "true to life" account of the difficulties and perplexities which such a student meets. Almfelt lauds Prof. Kent's method of teaching.

[Reviewer's note.] While Almfelt is obviously a "high potency" convert, this fact does not justify his statement which leaves us to infer that the use of aconite in the ϕ, 2x or 3x, is "routine and guessing" as compared with its use in "any potency from the 30th up."

2. *The Clinic.* S. L. Guild-Leggett, M.D., H.M.
3. *The Law of Cure.* H. H. Read, M.D., L.R.C.S., Edin., Halifax.

A disconnected review of the development of Homœopathy and the life of Hahnemann.

4. *Politicians Run the A. M. A.* G. F. Lydston, M.D.
5. *Clinical Cases from a Far-off Country.* H. L. Deck.
6. *Laryngeal Diphtheria.* C. M. Boger. M.D.

S. B. H.

Medical Century. December, 1913.

1. *Aequalia Aequalibus Curantur.* R. del Mas, Ph.D., M.D.

In this article, great stress is laid upon the failures or limitations of vaccine therapy, and its beneficial results are minimized.

"It is safe to say that those in our ranks who laud antitoxin are precisely the same who do not practise the principles of therapy of the Organon."

"A true Hahnemannian uses only the indicated remedy, and leaves empirical and fanciful therapy to the simpleton. The Hahnemannian cures his patients."

[Reviewer's note.] Such a Hahnemannian, moreover, is one who evidently consideres that everything worth while in therapeutics has already been discovered. He "cures" (sic) his patients, so why should he strive to advance, by experiment, the science of medicine? A true "Hahnemannian," as the term is used, (not as it should be) may adopt such an attitude, but a true homœopath—never.

2. *The Hot Air Apparatus and Some of its Uses.* J. A. Burnett, M.D.

Chronic states with markedly deranged metabolism are said to be most benefitted. Rheumatism, obesity, eczema and renal diseases are chief among a number.

3. *Homœopathic Examining Board Representation.*
4. *Prologue for the St. Petersburg Pan-Russian Homœopathic Congress, Nov. 2, 3, 4, 1913.* E. Petri Hoyle, M.D.

5. *Bigotry in Medicine.* Otto Juettner.

This paper has been published in the *Eclectic Medical Journal,* the *Therapeutic Gazette* and elsewhere. It is a criticism of the article by Bassler which appeared in the August number of the *Medical Times.* It is worthy of notice that Juettner is neither an "Eclectic" nor a "Homœopath."

6. *Pharmacodynamics and Therapeutics.* A. E. Hinsdale, M.D.

This is a series of excerpts from current medical literature.

S. B. H.

The Journal of the American Institute of Homœopathy. November, 1913.

1. *An Address Delivered at St. Petersburg, Russia, November 3, 1913, Before the Russian Homœopathic Congress.* E. Petrie Hoyle, M.D., London. Envoy of the International Homœopathic Council.

A review of historical facts connected with the growth and recognition of Homœopathy.

2. *Some Experiences in Blood Pressure.* E. G. Rankin, M.D., New York.

This article gives chief consideration to cases which illustrate variations from pathological conditions.

[Reviewer's note.] In this, as in many other articles, the importance of the diastolic pressure is wholly overlooked. The minimum, or diastolic, pressure represents the *constant* strain to which the arterial tree is being subjected, and shows the amount of resistance which the heart's energy must overcome before *any* circulation can be effected, while the systolic or maximum pressure merely represents an intermittent supercharge. The author also neglects the pulse pressure which with the systolic pressure represents a myocardial value and is an index of cardiac "load." The experiences cited would doubtless be easier of interpretation and of more value, had not these important factors been neglected.

3. *Pruritis Senilis—Dolichos and Fagopyrum in the Treatment Thereof.* R. Bernstein, M.D., Philadelphia.

Nearly one-half of the article deals with the above named remedies,—cowhage and buckwheat. The remaining space is given to a discussion of topical applications.

4. *Eucalyptus Globulus.* A. L. Blackwood, M.D., Chicago.

Catarrh of the respiratory, alimentary and genitourinary system affords a wide field for the drug's application. Dr. E. M. Hale is quoted as saying: "If I were confined to one remedy in the treatment of typhoid fever I would select this one." A short discussion follows.

5. *The Place of Diet in Homœopathic Practice.* W. E. Leonard, A.B., M.D., Minneapolis.

The article ends with this sweeping and peculiarly constructed generalization: "Diet as alone a means of cure is futile, but its careful outline is of great assistance to the proper remedy." A long discussion follows.

6. *Early Diagnosis of Typhoid Fever.* Belle Gurney, M.D., Chicago.

A brief outline supplemented by the discussion which follows it.

[Reviewer's note.] No mention is made of the blood culture method of identifying the infection.

7. *Register of Membership in the A. I. H.*

The Journal of the American Institute of Homœopathy. December, 1913.

1. *What is Scientific Medicine? A Refutation and a Statement.* James Krauss, M.D., Boston.

This scholarly and altogether excellent article is a largely rewritten and amplified form of Krauss' reply to Bassler's display of prejudicial ignorance and half-baked thought which appeared in the August number of the *Medical Times.* It is worthy not only of a careful reading but of scrupulous *study* as well.

2. *Is the Homœopathic Materia Medica a Scientific Quantity?* L. P. Crutcher, M.D., Long Beach, Cal.

In the discussion following this short paper there appear several feeble attempts to justify the interpolation of "clinical symptoms" into the "materia medica."

[Reviewer's note.] "Materia Medica" is an obsolescent term, lacking of definite meaning and should long ago have been supplanted by the really scientific "drug pathogenesis," in which, of course, no "clinical symptoms" could ever find a place.

3. *Surgery of the Prostate.* H. F. Biggar and H. F. Biggar, Jr., Cleveland. The authors commonly use the suprapubic route.
4. *Orificial Surgery an Aid to General Surgery.* W. H. Guild, M.D., Des Moines.

Guild says that—"Orificial surgery by relieving impinged sympathetic terminals in the rectum, penis, clitoris, pelvis, (and, if you please, in the ileocaecal region, nose, throat and ears), (1), flushes capillaries, both visceral and peripheral. (2), lowers blood pressure; (3), increases efficiency of blood content, (4), deepens respiration and aids oxidation; (5), wards off surgical "Shock"; (6), strengthens and steadies the heart's action; (7), tends to minimize pain; (8), assists in ease of anæsthetization and recovery therefrom.

5. *Errors in Modern Infant Feeding.* J. P. Cobb, M.D., Chicago.

Cobb urges a better management of natural nursing and fewer unnecessary and ill-advised weanings. Analysis of the breast milk should never be neglected when "things go wrong."

6. *My Experience with Salvarsan.* C. D. Collins, M.D., Chicago.
7. *Discussion on Oral Vaccination.*
8. *Discussion of Dr. S. C. Runnels' paper on "Some Aspects of the Health Movement from a Homœopathic Standpoint.*

S. B. H.

The Homœopathic World. December, 1913.

1. *Some Relationships of the Science and Art of Homœopathy.* Dudley D'A. Wright, F.R.C.S.

This is a long lecture dealing with the bearing of recent scientific advances upon Homœopathy. A deal of evidence is adduced in support of the "infinitesimal" dose. Most of the physical methods of treatment are "used on the basis of this law of likes curing likes." The author quotes Dr. Bellows, who emphasized the need of an Institute of Drug Proving, and urges the desirability of reproving, under the light of modern methods of diagnosis, the leading constituents of our materia medica. "It is our business to put it (drug pathogenesis) into such shape that, as a scientific work, it will commend itself to scholars everywhere. Such a materia medica would be investigated, and such investigation would quickly show the wide scope of the homœopathic law."

2. *Cases from Practice.* R. S. Stevenson, M.D.

Tuberculin in lupus. Eczema.

S. B. H.

The Hahnemannian Monthly. November, 1913.

1. *X-Rays in the Diagnosis of Diseases of Bones and Joints.* E. H. Grubb, B.S., M.D.

The subject is considered under thirteen clinical captions.

[Reviewer's note.] The author fails to refer to the importance of radiographs of the bones in cases of surface or of visceral carcinomata. Metastases are commonly found in the bones and their diagnostic, prognostic, and therapeutic significance is obvious.

2. *Some Hints to the General Practitioner on the Subject of Accessory Sinus Suppuration.* G. W. Mackenzie, M.D.
3. *Instruction in Physical Therapeutics.* Wm. H. Dieffenbach, M.D.

The author deplores the action of the committee on non-pharmacal therapeutics, in their recommendation that thirty hours is sufficient time to devote to the teaching of the numerous subjects under the above heading. Dieffenbach, from twelve years practical experience in teaching physical therapeutics, states that a minimum course of 110 hours is necessary, and "appreciating the fact that the public no longer worships at the shrine of drug

therapeutics but is particularly partial to physical methods of cure such as climatology, hydrotherapy, mechanical measures and electricity in its various forms, that portion of medical men which neglects to become conversant or proficient with these various branches, deliberately courts a loss of influence and practice."

4. *Chronic Intussusception, with the Report of a Case.* J. D. Elliott, M.D.
5. *Inguinal Hernia Operative Technique with Reference to the Anatomy of the Inguinal Region and Disposal of the Sac.* J. H. Thompson, M.D.
6. *Ectopic Pregnancy: a Plea for Early Diagnosis.* W. S. Piper, M.D.
7. *Reflections of an Absent-minded Therapist.* O. S. Haines, M.D.

Attention is called to the fact that the weakest spot in all medical practice is lack of investigation. Do not "presume" instead of "finding out." Do not make the *a priori* presumption that we "know" the remedy our patient requires. Avoid too intense concentration upon one subject, as well as simple inattention with its characteristic aimless wanderings of thought.

8. *Potency: and Where it is Found.* R. Walter, M.D.

This is an excellent philosophical treatise leading to these undeniably logical conclusions.

1. The power that made the organism is the only power that can heal or repair it; all appliances from without, whether food, drink or medicine, being but conditions or occasions for its operation.

2. This power is an inheritance from previous life, and not a product, any more than is gravity or affinity, all of which are creative forces. Vitality made us but cannot be made by us, any appearances to the contrary being delusive.

3. The rapidity and certainty of cure correspond with the amount of vitality, which is being hourly expended in the activities of life and recuperated by rest and sleep, the difference between these determining the amount of available power in possession of the invalid.

9. *Lest We Forget.* I. D. Metzgar, M.D.

The author warns against the common practice of neglecting the constitutional remedy and laying too much stress upon local treatment in diseases of the nose, throat, ear, etc. He briefly discusses ten of the well-tried remedies.

[Reviewer's note.] Such a title as "Lest We Forget," may be appropriate for a school-girl's graduation essay, or a theological discourse, but is distinctly and ridiculously out of place in a scientific medical journal. It is exasperating to the busy man who must select his reading from the table of contents. It means nothing when indexed, and an article with such a title is usually, though often undeservedly, consigned to oblivion merely because of the author's unconscious fatuity in selecting some popular *bon mot* to express his object in writing the paper, instead of making the titular inscription a distinctive designation which is explanatory or descriptive of the nature of the substance of the article.

10. *A Few Notes on Justicia Adhatoda.* S. Hamilton, Jr., M.D.

The drug is said to be useful in the early stages of affections of the upper respiratory tract, and its prominent symptoms of coryza and lachrymation are intermediate to those found in allium cepa and euphrasia.

The Hahnemannian Monthly. December, 1913.

1. *Urinary Tuberculosis.* J. Krauss, M.D., Boston.

Drawing from his experience of twenty-five years, and reviewing the literature, Krauss has written a concise and admirable treatise upon this comprehensive subject.

2. *X-Ray in the Treatment of Tuberculosis.* J. D. Gibson, M.D., Denver.

Printed in the October number of the *Journal of the A. I. H.* and reviewed in the *Gazette.*

3. *A Consideration of the Diagnosis of Early and Obscure Cases of Pulmonary Tuberculosis.* G. H. Wells, M.D., Philadelphia.

The author, in considering the large number of incorrect diagnoses, opines that the diagnosis of incipient or obscure pulmonary tuberculosis is a

difficult matter, and that the average general practitioner is neither grossly stupid nor criminally negligent.

Wells divides the sources of information into (1) the clinical history; (2) the physical examination; (3) the radiographic examination; (4) examination of the sputum; (5) the tuberculin tests. He gives special prominence to his consideration of the radiographic examination and shows some excellent plates.

4. *Peripheral Irritation in Girls.* M. E. Coffin, M.D., Pittsburgh.
5. *Gynæcological Economics.* G. P. Stubbs, M.D., Philadelphia.

The wife's illness may often be the deciding factor in a family's prosperity.

Stubbs urges "conservative thoroughness" and objects to the classifying of a physician as a "non-producer."

6. *The Conservative Treatment of Abortion.* E. P. Clarke, M.D., Pittsburgh.

[Reviewer's note.] The failure even to mention drugs to be used in accordance with the principle of symptom similarity, seemingly constitutes an error of omission.

7. *Obstetrical Examination.* A. G. C. Stetson, M.D., Philadelphia.
8. *Nasal Polypi.* G. T. Alexander, M.D., Philadelphia.

A detailed consideration of the types, causes, symptoms and treatment.

9. *Surgical Aspects of "Chronic Dyspepsia" and "Acute Indigestion."* A. R. Grant, M.D., Utica.

"All diseases of the abdomen are surgical until they can be proven medical."

10. *A Case of Cancer of the Stomach.* H. H. Read, M.D., Halifax.
11. *Transient Hemiplegia Resulting from Acute Alcoholism in a Child.* C. D. Fox, M.D., Philadelphia.

S. B. H.

The Eclectic Medical Journal. November, 1913.

1. *The Unseen and Unexpected.* J. R. Lloyd, Phar.M., Cincinnati.

Under this inefficient title, Lloyd discusses the probable importance of the substances present in minute amounts in the complex organic drugs.

"May it not be that the at present 'unseen' in the plant structure as a whole, will become as important to the chemical life of the future, as is radium now, in the cast off dross, pitchblende, to him who sees beyond the opportunities of the chemists in decades that have passed.

2. *Hernia.* J. C. Mitchell, M.D.
3. *Aconite.* J. Fearn, M.D.
4. *Berberis Aquifolium—Oregon Grape.* J. Fearn, M.D.
5. *Vital Statistics.* W. N. Mundy, M.D.
6. *Office Pharmacy.* J. M. Wells, M.D.
7. *The Medicinal Plants of North America.* Edited by A. W. Smith, A.M., M.D.
8. *Diabetes.* A. N. Herring, M.D.
9. *The Disorders of Sleep and the Use of Hypnotics.* W. E. Postle, M.D.
10. *Cystocele.* T. Bowels, M.D.

The Eclectic Medical Journal. December, 1913.

1. *A Reseach into the Action of Foreign Sera on Red Blood Corpuscles.* F. B. Grosvenor, A.M., M.D.
2. *Belladonna.* J. Fearn, M.D.
3. *Personal Observations on Certain Drugs.* W. Leming, M.D.
4. *Vaccines and Antitoxins on Trial.* J. M. Wells, M.D.
5. *Lobelia.* N. M. Dewees, M.D.
6. *Mangifera Indica.* H. T. Webster, M.D.
7. *Report of a Case of Bronchial Asthma.* D. E. Morgan, M.D.
8. *Whooping Cough.* C. D. R. Kirk, M.D.

S. B. H.

The Clinique. December, 1913.

1. *The Relation of the General Practitioner to Anti-Typhoid Vaccination.* C. J. Pollard, M.D.
   Pollard advises a wider prophylactic use of antityphoid vaccination.
2. *Hypertrophy of the Prostate—when Medical and When Surgical.* W. H. Gardner, M.D.
3. *Some Difficulties in the Application of the Materia Medica.* G. E. Dienst, M.D.
   [Reviewer's note.] Dienst, in his brief comment on the eight difficulties which he enumerates, gives very few suggestions as to the methods of overcoming them. Where can we learn about "potency"? What is the rule for changing the "potency" or is it done by instinct, whim or tradition? How distinguish the common natural fluctuations of disease from the homœopathic "aggravation" or "amelioration"? How may we recognize the cessation of action of a remedy or a "potency"?
4. *Care of Babies.* C. A. Weirick, M.D.
5. *Nitrous Oxid and Oxygen Anœsthesia.* W. B. Welch, M.D.
6. *Hydrotherapy.* M. G. Spawn, M.D.
   In this article which reviews the literature, especially that from the pens of Winternitz and Baruch, one may learn of some of the general principles of hydrotherapy and many of the methods used.

SOCIETIES.

The regular quarterly meeting of the Homœopathic Medical Society of Western Massachusetts was held at Cooley's Hotel at Springfield on December seventeenth at eleven A.M.

The name of Dr. Frank I. Nichols was proposed for membership. Resolutions on the death of Dr. Ernest P. Bixby of Barre, were adopted. A letter was read by the secretary, from the City Charter Committee, requesting the presence of the members of the Society at a meeting to be held at the Board of Trade rooms to discuss the plans for a new City Charter; another was read from the City Improvement Committee inviting the coöperation of the Society in their proposed work. A committee was appointed to confer with the latter. Dr. S. E. Fletcher of Chicopee, member of the Medical Advisory Board, spoke of the relation of the doctors to the insurance companies under the Employees' Compensation Act.

James B. Comins, Chairman of the Bureau of Gynecology and Obstetrics, presided at the scientific session. The first paper "Backache" was presented by Dr. E. W. Capen of Monson, and related principally to the various causes of pain in the lumbar and sacral regions. The second was a humorous talk entitled "Some experiences in Obstetrical Work," by Dr. Geo. F. A. Spencer of Ware. The third paper was a very interesting report by Dr. J. H. Carmichael of his early experiences in the study of Gynecology at the New York Clinics of Drs. Thomas and Emmett, and its subsequent practice in Western Mass.

The meeting was well attended, and all papers were freely discussed.

Erdix T. Smith, M.D.,
Secretary.

Homœopathic Medical Society of the County of Kings, New York.

The 471st regular meeting of the Homœopathic Medical Society of the County of Kings was held December 9, 1913, Dr. Roy Upham, president, in the chair. Notice was given that at the annual meeting amendments to the Constitution and By-Laws would be offered providing for associate members, and to change the meeting night to the fourth Tuesday. It is thought that men who are doing surgical work in special lines, who may not have the degree of M.D., dentists who are doing orthodontic operations, and those making a study of biological subjects, may be sufficiently interested in the

Society meetings to attend, and to provide for them this plan of associate membership it is thought may be a broadening of the society's usefulness. Four names were presented for membership: William C. Braynard, M.D., William C. Powell, M.D., Glynn Young, M.D., and Herbert DuCret, M.D., all of Brooklyn.

Dr. Herbert D. Schneck, Consulting Ophthalmologist of the New York State Department of Health, read a paper entitled: "Physical Defects Discovered by an Examination of the School Children of New York State by the State Department of Health." This paper was illustrated by a series of lantern slides explained by Dr. B. F. Shea,, D.D.S. Dr. H. M. Imboden, of New York, read a paper entitled: "The Roentgen Ray Method of Treatment of Fibroids." This paper was discussed by Dr. John F. Ranken, Dr. W. S. Rink, Dr. R. I. Lloyd and Dr. W. W. Blackman. Dr. Addison S. Boyce, of New York, read a paper on "Some Interesting Cases of Extrauterine Pregnancy." This paper was discussed by Dr. Harriet Van Buren Peckham, Dr. Louise M. Turton, Dr. Ranken, and Dr. E. Rodney Fiske.

Dr. Fiske, necrologist, presented a report on the death of Dr. William H. McLenathan. Dr. McLenathan was a Civil War veteran and was graduated from the New York Homœopathic Medical College in the class of 1878. He settled in Brooklyn and became active in the eastern District, establishing himself at 101 Division Avenue. He was a member of the State Society and joined the Homœopathic Medical Society of the County of Kings in July, 1878.

L. D. Broughton, Secretary.

The many-sided Dr. C. E. Sawyer is now acting as "advance agent and general manager" for the President of the Institute to "swing 'round the circle" and address a dozen State societies of the Middle West.

By careful planning and some shifting of dates on the part of the various State secretaries, Dr. Sawyer has arranged the following schedule wherein the President, Dr. DeWitt G. Wilcox, will not only address the members of the various societies, but will also address general audiences of the laity upon matters pertaining to modern medicine in general and Homœopathy in particular. It is the intention of Dr. Sawyer to have the Governors of as many States as possible present at these popular gatherings, and to use the occasion to the fullest for the advancement of the Cause of Homœopathy to the laity.

Dr. Sawyer and the President together with the various secretaries of the State societies are studying every detail of this proposed trip to get in some sledge hammer blows for the good of the Cause.

The itinerary is as follows:

Ohio State Society at Columbus, May 11;
Michigan State Society at Saginaw, May 12;
Indiana State Society at Indianapolis, May 13;
Illinois State Society at Chicago, May 14;
Missouri State Society at Kansas City, May 15;
Iowa State Society at Des Moines, May 18;
Minnesota State Society at Minneapolis, May 20;
Wisconsin State Society at Milwaukee, May 21.

The President of the American Institute is sending out the following letter:—

"Dear Doctor:

"We have arrived at a period in the history of the American Institute when it becomes imperative that we show our numerical strength. To the end that we may have an attendance at the Atlantic City meeting which will demonstrate this strength beyond peradventure of a doubt, I am selecting a Cabinet of one hundred men, tried and true, who will pledge me their best services for this accomplishment.

"I have selected you as one of that number because I know you are dependable and loyal to the Cause. I want you to get at least ten new members for the Institute before June 1st, 1914. Physicians who have grad-

uated within three years from said date are admitted for one dollar membership fee, (no dues), and one dollar for the Journal (one year). All others must pay three dollars membership fee (including first year dues) and two dollars for the Journal (per year).

"I also want you to get the promises of at least twenty physicians that they will attend the Atlantic City meeting of the Institute beginning the week of June 29th. If you find a physician who is eligible to membership but who refuses to join, kindly send me his name and I will use a "follow up" method that may secure him.

"Do you realize that an attendance of 2000 members at this coming meeting would do more toward placing Homœopathy in the ascendency than all the propagandistic work we have done in ten years?

"Do you know there are fifteen thousand registered homœopathic physicians in the United States, representing seven millions of clientele? Should we not have one-third of the fifteen thousand physicians as members of the Institute?

"We can do this if one hundred of us bend our backs to the burden. Will you help us? Please answer promptly and blanks will be sent you.

"Yours for homœopathic aggression,
(Signed) "DeWitt G. Wilcox.

THE FORTHCOMING "COLLEGE ALLIANCE" MEETING.

At the Denver convention is was decided to hold the next meeting of the "College Alliance" of the American Institute of Homœopathy in Chicago the last week in February. This date coincides with the meetings of the Licensing and Reciprocity Boards of the American Medical College Association, of the Council on Medical Education of the American Medical Association, etc. It is an occasion when matters of interest to every medical teacher are to be discussed, and it is of further concern because it enables us to keep in touch with anticipated changes in standards of education and in the medical laws of the several States.

The object of the Alliance is "to promote the interests of the homœopathic colleges, hospitals, and other institutions." "Each College is invited to be represented by its Dean or other designated officer and by one or more representative of its Faculty or Governing Board." "Each College is entitled to one vote in all matters coming before the Alliance." These quotations are taken from the constitution, but a fuller account of the purpose of the organization is to be found in the Journal of the American Institute of Homœopathy, the May issue of this year.

The occasion is to be one of frank confession and of the most intimate conferences. The meeting is for counsel and discussion. Let us freely admit our weaknesses, our faults, our failures.

Why does not Homœopathy make greater strides? Is the teaching of materia medica and therapeutics all it should be? Can the colleges be made greater factors in homœopathic progress? Are there better ways of perpetuating Homœopathy?

These questions are merely suggestive, of course, but they are asked in order that you may see how anxious the officers of the Alliance are to get right down to the fundamental defects in our methods. Perhaps there are no defects, but the fact that the Alliance was organized indicates the need of defense, as well as of aggressive action. What is it that requires defense, and why?

OBITUARY.

James H. McClelland, M.D.

Dr. James H. McClelland, of Pittsburgh, Pa., one of the most widely known and honored homœopathic physicians in the United States, died on November 15, 1913, and in his death worldwide Homœopathy and the American Institute suffered a great loss.

Dr. McClelland was born in Pittsburgh on May 20, 1845, the son of a minister in the Reformed Presbyterian church. He was a graduate of the class of 1867 of Hahnemann Medical College of Philadelphia, and in that same year the Pittsburgh Homœopathic Hospital had its beginning. Dr. McClelland was identified with this Hospital from the very first, and it was there that he died.

Dr. McClelland was a gentleman of the fine old type, greatly beloved by patients, friends and colleagues, and the *Gazette* feels a personal loss in the death of such a man. The world is better for his having lived in it.

Dr. William F. Minard (Hahnemann Medical College, Philadelphia, 1887,) of Waterbury, Vermont, died on October 9 last, at the age of 46.

Dr. F. S. Worcester, formerly of Peabody, Massachusetts, but recently located in Melrose, died on December 7th, in Peabody Hospital.

Financial Statement regarding the Fair held at the Copley-Plaza Hotel, Boston, Nov. 13, 14 and 15, 1913, under the Auspices of the Alumni Association of Boston University School of Medicine, to increase the Endowment Fund of the Medical School.

RECEIPTS.

Loaned by the Alumni Association and five private individuals to help finance the preliminary work	$ 650.00
Gifts in money to the Fair fund	868.00
Rummage Sale held in Jamaica Plain	224.13
Series of Bridge and Dancing Parties held throughout the Newtons	1,264.44
Programme and Calendars	2,440.00
Receipts during the three days of the Fair from all departments including all tickets	10,890.14
Total receipts	$16,336.71

DISBURSEMENTS.

Returned to Alumni Association and five private individuals	$ 650.00
Paid Mrs. Clemens guarantee money	500.00
Total expenses of Fair	4,175.48
Paid Mrs. Clemens 15 per cent commission on $11,011.23 and $75.00 of Fair money sent directly to Dr. Briggs	1,662.94
Total Disbursements	$ 6,988.42
Net proceeds	9,348.29

The above is a statement of the money actually handled by the Fair Committee. By including money not yet turned in, the net proceeds amount to $9,500.00 or thereabout.

Harold L. Babcock,
Treas. Fair Committee.

PERSONAL AND GENERAL ITEMS.

The Trustees of Boston University have elected Dr. J. Emmons Briggs, Professor of Clinical Surgery and a graduate of the Medical School in the class of 1890, a member of the Board of Trustees of the University.

Dr. Nicolaj Serkoff of Moscow, member of the Moscow Homœopathic Society and Russian delegate of the International Homœopathic Council, is in America on a visit of inspection of hospitals, medical schools and pharmacies.

Dr. Florilla M. White, class of 1908 B. U. S. M., has located at Palm Springs, California.

Dr. Frederick M. Sears, class of 1901 B. U. S. M., has removed from 6 Victoria Street to 5 Monadnock Street, Dorchester.

Dr. Francis X. Corr (B. U. S. M. 1898) has removed from 80 Magnolia St., to Hotel Gladstone, 677 Dudley St., Dorchester.

Flower Hospital of New York City has just opened a private pavilion for patients of wealth who require the comforts and luxuries of home. Some of the rooms are arranged in suites so that members of the patients' families may be accommodated, and rooms are supplied with open fireplaces, telephone service, private baths,—everything to add to the comfort, happiness and convenience of the patient. Special attention is to be paid to furnishing the table with luxuries and delicacies demanded by a capricious appetite.

This is something of an innovation in hospitals, quite typical of New York, and its success will be observed with interest.

Dr. Katharine French (B. U. S. M. 1910) has been appointed resident physician at the Talitha Cumi Home in its new and commodious quarters, Forest Hills St., Jamaica Plain.

Dr. John A. Hayward, class of 1906 B. U. S. M., has settled in Camden, Maine.

Dr. George D. Bliss, B. U. S. M. 1881, has removed from Adams St., Fields Corner, Dorchester, to 508 Washington St., Dorchester, Boston.

INTERNES WANTED.—Buffalo Homœopathic Hospital has vacancies for three internes, salary $400 a year each. The hospital has one hundred and thirty-six beds, and the staff is entirely homœopathic.

For further particulars inquire of Dr. R. M. Schley, 267 Elmwood Ave., Buffalo, N. Y.

A resident physician is wanted for the West Jersey Homœopathic Hospital, Camden, New Jersey. Board, uniform and salary to the right man. Apply at once to Dr. C. F. Hadley, 3320 Federal St., Camden, N. J.

Dr. William Rae Young (B. U. S. M. 1912) of Lawton, Michigan, was married on January 28 at Shelbyville, Michigan, to Miss Elizabeth S. Emerson (B. U. 1913) of Haverhill, Massachusetts.

FOR SALE.—A perfectly new and unused (with uncut leaves) set of Balzac's works in English, fifty-two volumes, the subscription price of which was three dollars per volume, can be purchased for twenty-five dollars. For information address "W. S. L." care New England Medical Gazette, 422 Columbia Road, Boston, Mass.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX MARCH, 1914 No. 3

ORIGINAL COMMUNICATIONS.

SPINAL ANALGESIA.

By J. Emmons Briggs, M.D., Boston, Mass.

For several years the attention of the world has been directed towards the subject of spinal anæsthesia. In spite of the thousands of reported cases with results comparing favorably with other and older methods, the surgeons at the Massachusetts Homœopathic Hospital have persistently refused to give to spinal anæsthesia a place with other well recognized methods.

In explanation it may be said that we were giving much attention to sequence anæsthesia, nitrous oxide, followed by ether, and nitrous oxide and oxygen, while others were experimenting with spinal anæsthesia. We continued along conservative lines and awaited the time when spinal analgesia had passed through its many vicissitudes and become a universally recognized procedure and superior to any other anæsthetic in properly selected cases. Has that time arrived? Before answering the question, a brief history of spinal anæsthesia is in order.

Bier of Berlin (1) was the first to make injections of cocaine (Aug. 16, 1898) in the human dural sac with definite purpose. In three out of six cases, including himself and his assistant, there was vomiting and headache coming on several hours after the injection, due in his opinion to irritation of the central nervous system. He concluded, after using the method a few times, that so long as cocaine was the only drug available for use in spinal analgesia, the method would never approach general use, as the sequelæ would prevent its adoption. (2) In the year 1900, there were on record six deaths from spinal cocainization in Europe alone. (3) Bier at the Thirtieth Congress of the German Surgical Association discussed the records of twelve hundred and sixty collected operations, with conclusions as follows:—this method of anæsthesia is not thought applicable to general use and is considered to be still in process of development (4).

In 1901, Bousquet reported one death (5) and Lequeu (6) two deaths following sub-arachnoid spinal anæsthesia. William M. Perkins (7) collected two thousand three hundred and forty-five cases of spinal analgesia, with sixteen deaths. Cocaine was the agent employed. A. W. Morton (8) in Sept. 1905, reported two thousand and sixty-six cases of spinal anæsthesia, fourteen hundred and twenty-seven with cocaine hydrochlorate, the balance with tropococain. There were no deaths which he attributed to this method. He was confident that the mortality following operations, especially in the aged, can be very materially decreased by its use.

In 1905, Bier of Berlin had used spinal anæsthesia in three hundred and five cases without any serious consequences. In the last three hundred cases, it failed in only four per cent. (9)

In 1908, Sonnenburg (10), Berlin, had used spinal anæsthesia eleven hundred and seventeen times with three deaths from meningitis; Kunnell (Hamburg) fourteen hundred times with no deaths; Allesardri (Rome), in seven hundred and eighteen cases with no deaths; Bruning (Gottingen) in four hundred and fifty cases, with three deaths and in one patient persistence of pain in back and legs for over a year.

Zahradnicky (Deutsch-Brod) (11) had used spinal analgesia sixteen hundred and fifty times, two hundred and twenty-six laparotomies and herniotomies, including operation upon the upper part of the body to the clavicle. Lumbar anæsthesia seems to him, "a precious method in the aged and in carcinomatous subjects, in ileus and in operations on the bile passages."

Strauss (12) compiled statistics of twenty-two thousand seven hundred and seventeen cases, operated upon under spinal anæsthesia with seven deaths, which he attributed as clearly due to anæsthesia and seventeen deaths, seemingly in connection with the anæsthetic.

In 1909, operating under spinal anæsthesia had become very popular and statistics showed a great reduction in mortality and disagreeable sequelæ. Individual surgeons enumerated their experiences in thousands and reported cases.

Jonnesco (13) from October 1908 to the time of writing his article for the Presse Medicale, October 13, 1909, performed all his operations in hospital and private practice under spinal analgesia making punctures at different levels of the spine, so as to obtain anæsthesia of the region to be operated upon, inserting the needle from the mid-cervical region to the mid-lumbar and changing the position of the patient in order to direct the anæsthetic agent to the site of proposed operation. Six and one-half per cent of his patients complained of slight headache disappearing in a few

hours. Post-operative vomiting was rare and he had no cases of post-anæsthetic paralysis. Patients ranged in age from twenty-one months to seventy-five years and included cases with cardiac, pulmonary, renal and hepatic diseases. He gave statistics of six hundred and twenty-three operations, one hundred and fifty-six with mid-cervical and upper dorsal puncture, and four hundred and sixty-seven with dorso-lumbar. In closing he gives as his conviction that spinal anæsthesia is the anæsthetic method of the future.

Koder gives his statistics of the use of spinal anæsthesia, having used his method in nineteen hundred and fifty cases. Nine hundred and eighty-five concerned operations above the antero-superior spine and eight hundred and sixty-eight below, without deaths attributable to the anæsthetic.

Owen Richards summarized his experience in five hundred consecutive cases in an article appearing in the Boston Medical Journal, as follows:

444 out of 500 injections were satisfactory, with analgesia sufficient,

12 cases, impossible to give injection,

38 " injection given and no anæsthesia followed,

18 " insufficient anæsthesia,

3 deaths.

He considers his failures due to defective instruments or solutions. Three-fourths of his imperfect results occurred in the first one hundred cases. Deaths occur during or at end of operation.

In 1911, H. E. S. Stiven, in his report of Government Hospital of Egypt, says that the most notable feature with regard to operations is the great advance which stovain has made as a routine anæsthetic. In the general theatre, the operations under stovain exceed those under a general anæsthetic; stovain, six hundred and sixty-two, general anæsthetic, five hundred and fifty-nine. No untoward results are recorded. Sixteen cases had to have ether in addition. In gynæcological clinics, only nineteen out of a total of two hundred and one patients were given a general anæsthetic. The average length of time this anæsthetic lasts is one and one-fourth hours.

Dr. Freeman Allen of Boston, says of spinal anæsthesia, in an article appearing in the Boston Medical and Surgical Journal, Dec. 28, 1911:—

"No satisfactory statistics as to its safety have been published, but I can refer you to Tyall, writing in the Practitioner for April, 1911, who compiled statistics showing a mortality of one to thirteen thousand. I would say emphatically that using tropococain with adrenalin, following Prof. Bier's technique rigidly, is as safe a method as any I know of.

"Many cases that would be difficult and dangerous by inhalation anæsthesia can be safely done with spinal. It absolutely blocks shock and is quite invaluable in leg amputation following railroad crushing. Its results are perhaps the most striking in old men requiring prostatectomy, in whom inhalation anæsthesia so often lowers their vital resistance enough to turn the tide the wrong way. It is also admirably suited to simple operation, notably for inguinal hernia, suprapubic cystotomy, fistula in ano and hemorrhoids. I have used it in three cases of intestinal obstruction and several times for appendicectomy."

In an article entitled "The Fourth Report on Spinal Anæsthesia" by Maj. J. W. H. Houghton, Royal Army Medical Corps, in the Journal of the Royal Army Medical Corps, May, 1912, page 573, he says:—"The following cases constitute the fourth series operated upon by me under spinal anæsthesia and are the second hundred consecutive cases, in which spinal analgesia has been used in the Cambridge Hospital, Aldershot. The results are such as to confirm my former appreciation of and confidence in this method; that spinal analgesia is a great help to the operator, especially when short-handed, is now freely admitted and that its safety is such as to make its employment preferable to the use of chloroform is also fully established. In the last one hundred cases, there was no case of failure in entering the dural sac and no case where the injected fluid failed to act. In four cases, the analgesia did not last until the completion of the operation. In thirteen cases, the patient vomited on returning to the ward. Twenty-five patients complained of headache on the evening following operation."

J. W. H. Houghton, in The Lancet, Oct. 12, 1912, reports as follows:—

"All spinal anæsthesia cases received a five per cent solution of stovain and glucose formulated by Barker.

"No failure to enter and inject the spinal sac occurred. There were no cases where injection was not followed by adequate analgesia. No symptoms occurred which gave any anxiety as to safety of method."

Stovaine greatly diminishes shock, as reported in Arris & Gale lectures, (B. M. J. Apr. 27, 1912). Whether spinal anæsthesia or some form of inhalation anæsthesia is preferable for routine use, is a question for the decision of the individual surgeon . . . . For work below the nipple line, stovaine-glucose anæsthesia is at least as safe as chloroform. Life saving operations can be performed under spinal analgesia in cases where chloroform or ether is inadmissible, *i.e.*, amputation of leg for diabetic gangrene or with advanced cardiac disease. Absence of shock

is conspicuous. Experience is necessary, but it is among the first fifty or one hundred cases injected that incomplete analgesia or other troubles are likely to occur.

Dr. Lewis Winfield Kohn in the Pennsylvania Medical Journal, September 1912, says, "No sequelæ of account occurred in any of our cases, but on the contrary I dare say that nearly every patient recovered with remarkable rapidity. The patients enjoyed a more speedy, immediate recovery than those operated upon under general anæsthesia. The patients were not so depressed just after operation. There was no nausea or vomiting. Patients were immediately put on soft or liquid diet."

We have now imperfectly sketched from current literature the progress which has been made in spinal anæsthesia from its inception in 1898 to the year 1912. The past year has demonstrated a marked revival of interest and enthusiasm, showing that the method is becoming quite universal; not, however, in the sense that it is destined to supplant other and well-proven anæsthetics, such as ether, chloroform and nitrous oxide, but that it is in reality the very best anæsthetic in selected cases, and under certain conditions is superior to all others.

The indications for its use are those which render inhalation anæsthesia contra-indicated. In pulmonary, renal and heart disease, it is strongly recommended. It blocks shock. It is especially applicable in operation upon the genito-urinary tract and rectum. In old men with hypertrophy of the prostate, it is almost ideal.

The arguments against its use are:

I. *The operator is committed to the dose.* He may increase it by a second injection, but he can not decrease it when once given.

This danger is overcome by using the least toxic of all preparations, Tropococain. Give standard dose and no toxic symptoms will develop, also marked control can be exercised by change in position of patient.

II. *In prolonged operation, the effect is transitory.*

It will last from three-quarters of an hour to two and one-half hours. There are very few operations which need consume over forty-five minutes, and very seldom does it happen that the anæsthetic lasts less than one and one-quarter hours.

III. *It is a dangerous thing to inject toxic agents into the lumbar tract.*

This was true of cocaine. That is the reason that many of us waited until a safe agent was discovered and thoroughly tested before employing spinal anæsthesia.

IV. *The danger of sepsis.*

Dangers from sepsis are not confined to the lumbar tract. The danger from lumbar puncture is slight as compared with other operations which are undertaken daily. The chief danger passed with the discovery of an anæsthetic agent which would tolerate sterilization by boiling.

V. *The pain of the lumbar puncture.*

This is very slight, after local chilling with ethylchloride and is less to be dreaded than the discomfort incident to inhalation anæsthesia. Patients who have been operated upon under spinal anæsthesia request it for subsequent operations. On the other hand, how often we hear the statement: "I don't mind the operation but I dread the ether."

VI. *The possibility of injury to the cord or spinal nerves.*

In the hands of a novice, this is quite possible, but it must be remembered that the point of election for introduction of the needle is between the second and third or third and fourth lumbar vertebræ. As the cord terminates opposite the lower border of the first lumbar vertebra, the danger to the cord is nil.

Following the technic which will be described, entering the dural sac near the posterior median line, an injury to the spinal nerves will not occur.

Technic.

Patients are prepared for operation precisely in the manner employed for general anæsthesia. About one-half hour before the operation is to be undertaken, a hypodermic injection of one-fourth of a grain of morphine and 1-200th of atropine is given. The syringe and canula are prepared by boiling.

The patient is brought to the operating room and requested to sit upright upon the table with the legs hanging down. A large area of the back is prepared by painting three or four times with iodine. The patient then folds his arms in front of him and bows the back in order to produce strong lumbar flexion. He is supported in this position by an attendant, upon whose shoulder the patient rests his head. The lumbar flexion materially increases the size of the inter-spinus spaces and facilitates the introduction of the needle. A laparotomy sheet is then spread over the patient's back; the opening in the sheet to correspond with the lumbar vertebræ where the injection is to be made.

If the introduction of the needle is to be made between the second and third lumbar vertebræ, this spot can be easily determined by computing from a line with the border of the upper crest of the ilium, which corresponds with the space between the fourth

and the fifth lumbar vertebræ. By counting upward, the interspace between the second and third can easily be determined. This procedure is exceedingly simple in thin patients, where the spinus processes are prominent. In corpulent patients, with the spinus processes deeply imbedded, it is by no means easy.

A spray of ethylchloride should be directed over the point where the needle is to be introduced, and when the skin is sufficiently anæsthetized the canula in which the puncturing rod is contained is introduced directly forward at right angles to the spinal column, starting at a point just a little to the right or left of the spinus process. After piercing the interspinus ligament, the puncturing rod is withdrawn from the canula and the needle pressed forward until the sub-arachnoid space is reached, when spinal fluid will escape through the canula. Should the needle come in contact with bone, it should be withdrawn and another attempt made. Should blood escape through the needle, it is withdrawn and inserted at a slightly different point. There is no difficulty in determining when the sub-arachnoid space is reached. The lack of resistance as soon as the membrane is punctured and the immediate escape of spinal fluid indicates penetration. It often happens that the fluid escapes in volume, but sometimes drop by drop. The fluid is allowed to escape directly into the syringe where it is mixed with tropococain solution, which has previously been sucked up into the syringe. After detaching the syringe from the needle, thoroughly mixing by shaking and exhausting all air, it is re-inserted into the canula and the fluid injected slowly into the dural sac. The canula, still attached to the syringe, is now withdrawn and a sterile dressing applied. The patient remains in a sitting posture for a minute or two and is then laid upon the table with the head slightly elevated.

Soon the patient experiences a numbness and tingling sensation in the lower extremities. To use his expression, he feels as though the feet and legs were going to sleep. In a period of time varying from five to ten minutes, the analgesia is satisfactory and the operation may be commenced.

The time which elapses between the injection and the establishment of complete analgesia is employed in preparing the field of operation by painting with iodine or any other method which the surgeon may employ.

It is desirable in all cases where spinal anæsthesia is used, or is to be used, to blindfold the patient, as it is very undesirable that the patient should witness all that is going on.

The regions which are most profoundly and quickly affected by spinal anæsthesia are the perineum, genitals and thighs. Operations made in these locations are always satisfactory, and patients

have never in any cases where I have employed this anæsthetic complained of any pain incident to the operation.

The spinal anæsthetic agent employed by me has been tropococain 1.3 c.c. of a 5 per cent solution, with addition of .00013 suprarenalin hydrochloride per c.c.

The eighteen cases operated upon by me in my clinic include:

1 resection of the rectum for carcinoma,
1 vaginal hysterectomy for carcinoma of the cervix,
4 suprapubic prostatectomies,
1 operation for carcinoma of inguinal glands,
1 " " inguinal abscess,
1 colostomy for carcinoma of the rectum,
3 herniotomies,
1 operation for varicocele,
2 " " hemorrhoids,
1 suprapubic cystotomy for stone in the bladder,
1 operation upon the rectum for incontinence of feces,
1 case of urinary fistula and urethral stricture.

In six cases the injection was made between the third and fourth lumbar vertebræ; in twelve, between the second and third.

Duration of operations ranged from ten minutes to one hour and thirty-five minutes. The length of time elapsing between the injection and surgical analgesia varied from eight to twenty-five minutes. In fifteen cases, analgesia was complete. It failed completely in one case and was supplemented by subcutaneous injection of novocain in two cases. Very slight headache was present in four cases. Two cases had nausea and vomiting, but no nausea or vomiting has occurred during an operation; no irregularity of pulse or respiration. No symptoms have arisen to occasion the slightest apprehension. Patients have all been conscious, have conversed with us throughout the operation and have rendered much assistance by changing their position on the table, flexing or extending the leg, turning upon the side, coughing, etc. It is a great convenience when searching for a hernial sac to have the patient cough. This distends the sac, making it quickly recognizable.

Please do not gather from what I have said concerning spinal anæsthesia that I am an enthusiast upon the subject. Had this been so, more than eighteen cases would have been reported. Extreme conservatism has been our motto. We have used the anæsthetic only in low operation.

I am no longer afraid to use it and am fully convinced of its superiority over any other anæsthetic in prostatic surgery.

Having done quite a number of prostatectomies upon patients far advanced in life, from seventy-five to eighty-six, and presenting

a large variety of complications, I have been impressed with the shock present immediately after operation. This was even more noticeable while operating by the perineal route, for I was never able to perform a perineal prostatectomy in less than double the time consumed in a suprapubic, and the amount of blood lost is far greater in perineal section.

Formally, the shock was always attributed to the severity of the operation. Under spinal anæsthesia, those enfeebled old men leave the operating table with no shock, no pallor and no mental depression.

Since using spinal anæsthesia, one thing has been strongly impressed upon me; *i.e.*, that in any ordinary case, the anæsthetic is responsible for far more discomfort than the operation. If one is not convinced of this statement, place side by side two prostatectomy cases, one under ether, the second under spinal, and compare results. The picture of the ether case needs no description. We are all familiar with the shock, the blanched countenance, the unpleasant awakening from the anæsthetic, the nausea and perhaps vomiting, the derangement of the stomach necessitating careful feeding for several days following operation.

In the adjoining bed is a prostatectomy under spinal anæsthetic. He assists the surgeon during operation and the orderly in moving him from the operating table. He is immediately taken to the ward, chats with his attendant and enters into conversation with his neighbors about the operation. He eats his dinner and may not miss a meal from the time of operation to his discharge from the hospital. The fact that these depleted old men may continue upon full diet is a strong argument in favor of the anæsthetic.

The immediate post-operative condition of these two patients is so dissimilar as to fill one with enthusiasm for spinal analgesia in prostatic surgery.

BIBLIOGRAPHY

1. Allen, J. M. Vermont Medical Monthly, Jan. 15, 1912.
2. Bier, A. Wien Med. Bl. Aug. 17, 1899.
3. Reclus, P. Jr. Am. Med. Association, Apr. 13, 1901.
4. Bier, Am. Med. May 4, 1901.
5. Bousquet, Gaz. der Hop. Jul. 13, 1901.
6. Lequeu, Pres. Med. No. 90, 1901.
7. Perkins, Wm. M. New Orleans, M. & S. Jr. Sept. 1902.
8. Morton, A. W. Northwestern Lancet, Sept. 15, 1905.
9. Bier, A. Archiv. fur Klinische Chirurgie, LXXVII, No. 1.
10. Sonnenburg, Journal de Chirurgie, Oct. 1908.
11. Zahradnicky, Semaine Medicale, Oct. 14, 1908.
12. Strauss, Year Book of Surgery, Vol. II. 1909, p. 27.
13. Jonnesco, Presse Medicale, Oct. 13, 1909.

THE SANITARIUM; ITS RELATION TO THE COMMUNITY.

By Frank W. Patch, M.D., Framingham, Mass.

In view of the rapid multiplication of hospitals during the past decade it may not be without interest to review briefly some of the underlying causes having relation to this growth.

Several preliminary observations, largely social, in this connection may be noted as bearing directly or indirectly on the facts before us.

A—Changing conditions of community life, including ease of communication and transportation as tending toward hospital growth.

B—An improved mental attitude of the community toward hospitals, due largely to better management of the institutions and increased familiarity on the part of the public.

C—Contracted household life and intensive occupation combining to render home care in any severe illness entirely impractical.

D—Finally, a greater sense of responsibility, on the part of society, toward its component parts. In other words, in spite of the continuance of warfare among supposedly civilized communities and the keenest sort of competition in business life, the past quarter century has witnessed a quickening of the public conscience and a growth of true brotherly love such as no like period has ever before experienced.

These are some of the more evident reasons for the phenomenal growth of hospitals in recent times.

We will not discuss at present the question of the quality of service rendered and its actual accomplishment in the mitigation of evil.

It is enough for our present purpose to realize that the hospitals have become a legitimate part of our community life and that they are likely to increase in the immediate future to a considerable degree beyond present realization.

Hospitals but represent in the large the practice of medicine.

The service formerly rendered by the general practitioner of the country town has become concentrated for economic reasons and adapted to urban conditions; the various sub-divisions have been taken over by experts.

As medical practice itself has become subdivided and broken up into specialties, so it has been inevitable that hospitals, in the course of time, should likewise begin to specialize, and we have thus witnessed the growth of general hospitals, maternity, eye and ear, contagious, surgical, insane hospitals, and so on.

General hospitals have found themselves limited, by force of circumstances, largely to surgical and acute medical diseases.

The enormous amount of this work, and the imperative necessity for immediate attention to its crying needs, have conspired to eliminate practically all other forms of illness from the wards of the general hospital.

In order to meet the needs of the vast army of less acutely ill and incompetent members of society, though none the less incapacitated, there has arisen a large class of special hospitals and institutions now performing meritorious service in our midst.

The limits of this paper necessarily prevent any extended consideration of all the occupants of this great field, and consequently but one will be singled out for attention, and this is, perhaps, the latest to acquire a healthy growth and become of sufficient importance to command our notice.

The modern sanitarium, in this country, had its inception some fifty years ago.

Clifton Springs, Dansville, and Battle Creek were pioneers in the field. The so-called "water cures" established by men of the type of Dio Lewis, throughout New England, became prominent at about the same period.

Religion and what would be thought of today as semi-quackery pervaded many of these early establishments, and they appealed to the untutored laity rather than to the legitimate medical fraternity. Indeed there is reason to believe that the physicians of the time scorned these institutions, and perhaps not without reason.

A few of the places that were originally headed by honorable physicians of strong character have survived, but for the most part they have disappeared before the march of progress.

In their place there has evolved, slowly and surely in response to public demand, a class of wholly different institutions, ethical in their relation to the medical profession, honest in their dealings with the public, and caring for their patients in accordance with the latest scientific knowledge.

Leaving out of consideration the multitude of nursing homes, the best of these modern sanitaria have come to be, for all intents and purposes, hospitals for chronic diseases.

General hospitals have been wholly unable to care for this class of cases and until quite recently neither the State and but rarely any great public benefactor has made the slightest effort to recognize this most pathetic class of individuals.

Even physicians, gifted by nature and training with the patience and insight necessary to the working out of the many problems connected with the subject, have been very few in num-

ber. Nor is it strange. Society is in a constant state of evolution; originally it was very simple; it is becoming more complex every year. The most pressing needs must be given first attention.

Acute medical and surgical diseases, the insane, the feeble-minded and the criminal classes *must* be studied and classified and protected even though at last we awaken to discover that we have wholly neglected another large class in the community, the neurasthenics, the hypochondriacs, those suffering from a multitude of minor neuroses, the incompetents and the simply aged and infirm who have been left, in a large measure, to shift for themselves.

Their homes, when they have any, often become intolerable to these sufferers and they are in turn a menace to the peace and happiness of all other members of the household. If poor their position is pathetic and deplorable to the last degree. If well-to-do they are usually sent, sooner or later, to a private sanitarium as the only alternative, and it is for the beneficent purpose of relieving this large and constantly growing class of sufferers that the sanitarium has gained prominence.

The charge has been made that these institutions are largely commercial in their conduct. The writer cannot deny that there may be instances of such abuse but, on the other hand, he can affirm from personal knowledge of many sanitaria that they are as well managed and the patients are as conscientiously cared for as in any publicly conducted hospital of which he has knowledge.

On the other hand we can hardly expect the present regime to yield as satisfactory opportunities for study, instruction and scientific data as would be possible in larger endowed institutions.

That it would be generally helpful if physicians could interest themselves more actively in the sanitaria where they send their patients may be conceded. It would tend to a better morale in the institution, and the patients would feel less the sensation of having been "dumped" out of society or the home and thus gotten rid of.

Again, physicians having done much to relieve the old stigma of the insane hospital, should go still further in discrimination and show their patients that all sanitaria are not merely private insane asylums.

It would still further clarify the atmosphere if the sanitaria that avowedly concentrate their attention and efforts on mental cases should frankly adopt the title of "Psychopathic Hospital," which is what they really are. Frankness and truth are always helpful in dealing with the sick. This would leave the term sanitarium to be applied as defined by Webster to "a health station

or retreat; sometimes restricted to an establishment where the treatment is wholly or almost wholly prophylactic."

The time would seem ripe for this differentiation which is wholly within reason if the word sanitarium is to remain in our vocabulary; this designation would then gradually become understood to refer to a retreat for chronic diseases generally, rather than for any especial form of disease, except when specified as in the case of the "Tuberculosis Sanitarium."

In furtherance of a clearer understanding of the position of all places where the care of the sick is undertaken it would seem in the line of modern progress to expect that some form of inspection and license by the state might be advantageous to all concerned, though the present partial control is far from satisfactory, largely owing to the fact that the state has not yet in the elaboration of its laws, taken cognizance of any intermediate mental condition between out and out insanity and the normal human being.

The great horde of border line cases and minor mental idiosyncrasies, unless independent in means, are practically abandoned. When not willing to be committed, voluntarily or otherwise, as "insane persons" there is nothing left for them but to shift as best they may.

The "sanitarium," then, may be regarded as a hospital, if you please, for general chronic diseases, but if it is to fulfill its mission in the community it must retain very few characteristics of the general hospital, as we now understand that institution.

The "sanitarium" should always be located amid the ample surroundings of some country place, on an elevation if possible, where there are long restful spaces and pure air. Yet it must be easy of access in order that friends of patients and others having business with the institution may not be subjected to unnecessary difficulties of communication.

Aside from the usual facilities and equipment for the care of patients which may be taken for granted, two especial features not obtainable in the hospital for acute diseases should be conspicuously provided: a *social atmosphere* and *occupation* variously suited to the needs of constantly changing groups of people.

So many subtle qualities enter into the creation of the first of these essentials that any attempt at further elucidation would seem almost hopeless; suffice it to say that sincerity of purpose must underlie all betterment effort.

As to the second, it is more simple though it is by no means easy to provide every individual with appropriate and practicable employment especially when, as is true in many instances, they

really want only idleness and an opportunity to concentrate on self.

Often this matter must be worked out with care almost equal to that needed in selecting a remedy, and it is perhaps, hardly less important.

Finally, the feature of sanitarium work on which greatest emphasis should be laid, and one which has as yet been barely touched upon in a few instances, is the educational side.

It would be difficult to overestimate the opportunity for constructive hygienic instruction, physical, mental, and moral, when those in charge are equal to the occasion.

A large percentage of chronic cases may be at least greatly mitigated through a simple, sane and systematic life combined with honest effort in behalf of others.

The development of judgment and the sober observation of conditions; control of the emotions, and the education of the will in an effort to rise above the sordid side of life, are a few indications of the direction that instruction should take,

---

INDICATIONS FOR AND RESULTS FROM SANGUINARIA IN PNEUMONIA.*

By B. G. Clark, M.D., New York City.

The special indications that call for sanguinaria in pneumonia are found usually in the second and third stages and are given concisely in "Lilienthal's Therapeutics" as "Cough dry at first; excited by tickling and crawling in the trachea and upper portion of the chest; tough and rusty sputum during red hepatization, purulent and offensive in the third stage; hectic fever, diarrhea, night-sweats, prostration, distressing amount of dyspnoea, hands and feet burning hot or cold, lies upon back with head elevated; *failure* of *heart's action, before amount of hepatization can account for it.* Heart's beat weak and irregular; patient feels faint, covered with sweat and suffers from nausea; pulse small and quick, fever from "2 to 4, with flushed cheeks."

My own use of sanguinaria in pneumonia has been on the indications as given above. I would emphasize the symptom of the patient's lying on his back. The pains of sanguinaria are much like bryonia in character but less severe; and while the bryonia patient is relieved by lying on the painful side, the sanguinaria patient always lies upon the back; sitting up and passing flatus relieves the cough. In most of the cases coming under my ob-

* Read before the New York County Homœopathic Society February 12, 1914.

servation where sanguinaria has been indicated the sputum has been tough and often quite bloody. While sanguinaria is considered a right-sided remedy, I am certain I have used it as often for left as for right-sided troubles.

With sanguinaria I have succeeded in curing two cases in the second stage of pneumonia. The curing a case in the second stage means considerable. The fever generally subsided (lysis), dullness over the affected area gradually lessened, and normal respiration returned in three days after commencing the remedy with scarcely a râle to be heard and very little expectoration. One of these cases was under the observation of a physician who was in the habit of giving his remedies low and prescribing for the *condition* more often than the patient. He told me over the 'phone it was a case of catarrhal pneumonia and wanted me to go up in the morning. When I arrived and found consolidation in a portion of left lung he said, "that came on over night." After careful examination I told him I thought sanguinaria was the remedy and I would give the 200th. He said, "This is your family and I do not care to assume any responsibility with any remedy in the 200th with a pneumonia and temperature of 104½"! He agreed to visit the patient twice a day and report, and later reported that he never saw a case of pneumonia cured in that stage before. I am aware that reports of cures of this kind are often listened to with many misgivings and sometimes passed on as "a mistake in diagnosis." I was thankful in this case to have the co-operation at least in diagnosis, with a very competent physician, a former intern at the Metropolitan. Sanguinaria is a remedy that follows well after phosphorus or opium. Sanguinaria compares well with opium as regards sweat stage, but the pulse of opium is full and slow while the sanguinaria pulse is feeble, often intermittent. The hot sweat all over calls loudly for opium. Sanguinaria has a burning pain under the sternum, not present in the opium cases. Sanguinaria will often tide over a feeble heart in the second stage of pneumonia, and this is in my opinion the most dangerous time, and a time when our "old school" friends give stimulants and the heart just gives up the work of trying to pump blood into a solid lung, which is like butting one's head against a stone wall. The wall remains, but the head is damaged, and so is the stimulated heart under such conditions. Here is where sanguinaria often saves the patient.

A CRITICISM AND A REPLY TO TWO RECENT ATTACKS UPON HOMŒOPATHY.*

By Sanford Burton Hooker, M.D., Boston, Mass.

On February 1, 1913, there appeared as the leading article in the Journal of the American Medical Association, which incidentally is published under the auspices of the board of trustees, a dissertation by John Benjamin Nichols, M.D., on the subject of Medical Sectarianism. A similar exposition,—"Therapeutic Pathies, Creeds, and Sects; the Mushrooms of Scientific Medicine,"—was printed in the August, 1913, number of the Medical Times over the name of Anthony Bassler, M.D. It was but last week that I read the latter article. I had regarded the one by Dr. Nichols as probably sporadic, but as the attack against the so-designated sectarians has continued, it has been deemed fitting to point out certain facts and to indicate again the way by which this unnecessary controversy can be definitely settled.

These papers illustrate inimitably a reversion to the type of antihomœopathic attack which was used during the first two-thirds of the nineteenth century. During the past generation it has been merely the "pitiable deluded homœopath"; but now, as for many years before, it is the "attitude of insincerity"; "grafters"; "quacks"; "charlatans." Portions of Dr. Nichols' essay do suggest elements of fairmindedness; Dr. Bassler's is more disingenuous, but in each the paragraphs concerning homœopathy are wholly unfair and contain many perhaps unconscious perversions of truth which in conversation would be taken as a jest; but when published in leading medical journals of the nation, they take on a more serious aspect. The *ex cathedra* tone of these articles is one rarely assumed by well-informed and judicially minded writers; it, with the ill-advised epithets employed, constitutes a serious fracture of the ethical principles of the medical profession.

It is to be understood that, aside from other specific references which may be made, I am endeavoring to defend merely the rational homœopathy of today. For clarity of comprehension on many points it is recommended that there be free recourse to the literature cited in foot-note references. I regret being compelled to resort to polemics of this character, but only supine idiocy can refuse to correct misstatements and to shield itself from perhaps polite but none the less Macchiavellian innuendoes. My chief object, however, is to urge an unbiased investigation of homœopathy.

Recently Dr. Friedmann journeyed to this country with a re-

* This paper was refused publication by the Journal of the American Medical Association and by the Medical Times.

puted "cure" for tuberculosis. He was courteously given every opportunity to justify his claims. Medical committees investigated his method and found it wanting. His was a method upheld by one mistaken man. On the other hand, here is homœopathy, a method applicable in many diseases, upheld by fifteen thousand men, and which came to the United States scores of years ago. It has nothing to sell. Commercial instincts never could lead it to request investigation. I most earnestly ask for a single honest reason of any weight whatsoever, why, if the American Medical Association has any true scientific spirit, it can refuse to collaborate with us in an effort to test the stability of our principles.

In the first sentence of his discussion Dr. Nichols states that each school and sect "claims to present a complete system of medical practice." Of homœopathy this is absolutely untrue, as is proven by the accepted definition of a homœopathic physician—"one who *adds* to his knowledge of medicine a special knowledge of homœopathic therapeutics and observes the law of similia. All that pertains to the great field of medical learning is his by tradition, by inheritance, by right." There is not the slightest inconsistency in using other medicines or measures which have a genuinely reasonable foundation for their remedial value. Our profession does not claim any universality for homœopathy and does deplore most sincerely the rabid and utterly foolish propagandistic material (Notably from Perkasie, Penn.), which has recently been distributed without the slightest authorization.

"The point of view," again quoting Dr. Nichols, "of the scientific physician makes him unable to perceive any rational basis for sectarian dogmas." He is one, fortunately not of many, who is thus sorely afflicted. Some of the real leaders in his school freely acknowledge that homœopathy does possess rational principles, yet he does not hesitate to assert authoritatively his *unsubstantiated* opinion. I might with justice say that his point of view is "pathologic"; at least it arises from ignorance of facts, from but partially glimpsing them, or from a misconception of their true meaning and extent.

He states that our adherents are large in number and come "from the most reputable, most substantial, and most intelligent sections of the community"; further on, that "in his terror at the dangers threatening life and health, man will grasp at straws, . . and put misplaced confidence in specious and fallacious ideas." Is this latter attitude characteristic of that class of patients? In another paragraph—"much of the practice that goes to the sectarians is of a psychic character, irksome and uninteresting to the average practitioner, which he is glad to be rid of." Is this con-

sistent with either of the above excerpts? I leave you to judge. Consistency is impossible to Dr. Nichols, I hope not for the reason it is lacking in him, but because of the nature of the thesis he has attempted to prove.

In their use of the word quack both the Washington scientist and Dr. Bassler followed the libelous custom of their narrow-minded forebears. No man who studies medicine and whom the State Boards vouch for by granting registration, can be called a quack, provided he is honest in his practice and sincere in his belief, irrespective of his therapeutic methods. A charlatan or an honorable, conscientious practitioner is never such because of his school affiliations. The faculty of the Polyclinic of New York is not wholly composed of men who agree with Dr. Bassler. Following is a statement from a professor who has served there for thirty years. "I know and everyone in my position knows, that you (the homœopathic profession) are scientific, sincere, and capable." What more can anyone claim?

Dr. Bassler takes a childish view of psychotherapy, showing that he has never attempted to reason out the why of its being so strongly intrenched in the Christian Science Church. Why cannot he take his share of the blame? Why cannot it be realized that the enormous temple here in this city stands as a monument of lasting reproach to the whole of scientific medicine because in its stupid self-satisfaction it refused to grasp and make legitimate use of the *vis medicatrix mentis?* If Dr. Bassler had read Dr. Nichols' remarks on self culture his own would have been less frivolous. Nevertheless, Dr. Nichols makes the bald assertion that the healing power of the mind "explains whatever therapeutic efficacy the medical sects and all other forms of irregular treatment possess." Unfortunately, reasons for this dictum, as for many others, are lacking and its disproval is easy, as I shall show in discussing homœopathy and its workings.

In his effort to expose homœopathy, Dr. Bassler has culled some extracts from the fifth edition of the "Organon" which was published in 1833. Most of these extracts are from the introduction, are independent of the context, and in representing them as the "whole system upon which homœopathy is built," aside from a "ridiculous squib on like cures like," *he has not presented a single essential principle of homœopathy.* Suppose, for analogy, I should select an old school book of similar date and cull the weakest and most unfavorable fragments from it, then hold them up to scientific physicians as being the whole system upon which allœopathy is built. What a merited storm of abuse and ridicule would I receive were I imbecile enough to do it!

In omitting to enumerate or even to suggest the "rational

and comprehensive principles" upon which scientific medicine is grounded, Dr. Nichols may be sapiently discreet but he lays himself open to his own criticism of sectarians,—that they "make an impression by dogmatic reiteration of unproved assertions." Will he dispute the words of H. C. Wood who in the preface to his "Therapeutics" (8th ed.) says that "the old and tried method in therapeutics is that of empiricism, ...yet developed in this manner it cannot rest upon a secure foundation. ...Experience has been in medicine a blind leader of the blind, and the history of medical progress is a history of men groping in the darkness, finding seeming gems of truth one after the other, only in a few minutes to cast each back into the vast heap of baubles that in their day had also been mistaken for verities." By way of contrast, the "pathologic" homœopath uses his belladonna and his arsenic according to the same indications and with the same success as nearly a century ago. However, let us consider some of the principles to which Dr. Nichols probably refers. Serum therapy, resting upon the principle of immunity, is rightfully lauded as being a valuable contribution to medicine. Many of the old school profession with ignorant and ridiculously partisan attitude arrogate exclusively to themselves the principle upon which serum therapy is used. Not so the discoverer of antitoxin and winner of a Nobel prize, von Behring. He says that its "therapeutic usefulness must be traced in origin to a principle which cannot be better characterized than by Hahnemann's word homœopathic."*

Concerning vaccine therapy, another therapeutic method which the old school looks upon as being its own, the practice certainly in principle (and "dosage") is homœopathic.† Virchow said that "bacteriological therapeutics rests upon a homœopathic basis. Wright admits it, confessing himself the "arch Homœopath" of us all. If, however, the disease be not of infectious origin vaccines are without avail; but homœopathy offers still another reinforcement,—the use of the properly indicated remedy in non-infectious disease,—and if we wish to use it, in infectious disease as well.

---

* He should be honored for these words alone: "If I had set myself the task of rendering an incurable disease curable by artificial means, and should find that only the road of Homœopathy led to my goal, I assure you dogmatic considerations would never deter me from taking that road." A similar tribute is paid by Dr. Amalio Gimeno of Madrid. "As the author of a treatise on therapeutics that I published twenty-five years ago at Valencia, which became classic in the Spanish faculties, I deplore sincerely having consecrated several pages to unjust attacks against Hahnemann and his disciples, and I would like to be able today to tear these pages from my book. Modern discoveries, however, will charge themselves with the care of correcting them. It is most proper that we should venerate the grand figure of Hahnemann who divined that which subsequent events sanctioned."

† For a fuller discussion see Wheeler's article in the British Homœopathic Journal, August 1912, p. 358.

As to your "specifics," none but the wilfully perverse can deny the homœopathicity of iron in chlorosis, mercury in syphilis, or of quinine in malaria; or denying, all must admit the poisonous action of each displays remarkable similitude to the disease it has power to relieve. Neo-salvarsan is the result of the recent trend of pharmacological experimentation to synthesize remedies and establish a *therapia sterilisans magna.* Experiments referring to the value of this antisyphilitic have been made in homœopathic institutions and by homœopathic adherents. Research of this nature is of interest to all physicians and we do all in our power to further it. The principle of its action may be homœopathic or it may not; having truly remedial value we do and shall use it.

Thus it is that the most valuable of the guiding rules of scientific medicine are admittedly homœopathic in their working and their priority of discovery and formulation.*

In view of these facts can our therapeutic method be justly said to have "the poorest of excuses for existence and the most fantastic set of principles?" In view of these facts does the homœopathic profession endeavor to exclude other physicians from using its methods? When allœopaths employ our methods do we sneer at their insincerity or call them renegades, quacks, or grafters? When they publish results of treatment with homœopathic remedies do we hold them up to ridicule? In this latter connection, I was sadly amused at reading in one of your leading journals† an article on the use of phosphorus in pulmonary diseases. I quote from the first paragraph: "So far as I have been able to ascertain by reference to literature and records *no mention,* (my italics) for the last thirty years at least, can be found of phosphorus, in the pure state, having been administered as a therapeutic measure in the treatment of diseases of the lungs." Reports of a large series of cases of tuberculosis, lobar pneumonia, and bronchitis follow; the average dose was 1-500 of a grain: the author thinks that the effects were "wonderful." For a century the entire homœopathic profession has used phosphorus as a most potent and reliable remedy in pulmonary disease. Its use is amply warranted by its pathogenetic similarity, and by clinical results which have been widely published. Rigid adherence to the school of your choice should not deter you from reading some of our publications. I venture the opinion that you will derive as many

---

* Neuberger ("Vorgeschichte der Antitoxischen Therapie" p. 45) points out that at Leipsig in 1833, J. J. W. Lux, a homœopathic veterinary surgeon presented a system which embodied the germ of modern bacteriotherapeutics, thus anticipating by several decades the now famous men to whom all honor is due for their perfection of methods.

J. Compton Burnett of London 1890 ("Five Years' Experience in the New Cure of Consumption by its own Virus") had been experimenting for years with tuberculinum before Koch's announcement of his discovery.

† New York Medical Journal, Aug. 16, 1913.—"The Use of Phosphorus in Diseases of the Lungs" by F. Lemon.

affording suggestions as do we in our never disregarded, careful perusal of your periodical literature.

For centuries, in its usage of drugs, the only semblance of a *principle* which the old school has followed in most ailments has been that of *contraria contrariis curentur.* Today, it cannot be denied that the trend of opinion among the keenest minds of that school is one toward uncertainty and distrust as regards drugs. Recent graduates from class A medical schools dispute the value of almost all drugs or have but weak faith in their therapeutic virtues. To quote a brilliant young graduate from Harvard and the Massachusetts General Hospital: "I confess that the only drug I know how to use is aspirin." This is, of course an exaggerated statement, but this man of above the average acumen has been studying medicine for six years under a system which boasts of its "rational and comprehensive principles." Men of the Harvard Faculty and other authorities whose repute is nation-wide advise that *if* drugs are used, they should be pushed to so-called physiologic effect unless relief occur sooner. Until very recently the usual medicinal treatment of that symptom, constipation, has been the prescription of a cathartic in sufficient dosage to assure the patient of a "lovely" movement; and this in spite of the long known and undisputed law that action and reaction are equal and opposite in direction. This, even today, in one of the most frequently encountered aspects of "scientific" medicine. Because of this and similar practices it is the allœopath to whom the vast majority of the pathetic victims of habit forming drugs are to render their doubtful thanks. This fact alone is an indisputable argument in favor of homœopathy. "We may not cure, but we were guilty of malpractice if the least harm resulted from prescribing medicine."*

Homoeopathy: What It Is.

Homœopathy is a *method* of treating the sick in accordance with the formula *similia similibus curentur:* let likes be treated by likes. It is a specialty in pharmacotherapeutics. It is a *part* of medical science, and the practice of the homœopathic physician differs from that of the ordinary school *only* in its method and rationale of administering drugs. As merely a scientific method, neither necessarily a law nor a science, of therapeutics, it determines constitutional medical treatment through symptom-similarity. Symptomenähnlichkeit is a more clear and definite rule than is the convenient paraphrase *similia similibus curentur,* which was used by Hahnemann only once and then as a contrast with *contraria contrariis curentur.* It places in correspondence the two

* Conrad Wesselhoeft.

essentials in medical treatment, namely the patient and the drug indicated. "The sciences of pathology and pharmacology are the premises. Homœopathy is the method by which the sciences of pathology and pharmacology are brought into correspondence for the purpose of cure in medically curable constitutional diseases, for the purpose of a correct homœopathic therapeutic application, for the purpose of a scientific therapeutic conclusion."[1]

Principles. I. The "proving" of drugs, or testing their effects upon the healthy human organism. This is patently the only rational method of obtaining a detailed, practical knowledge of drug pathogenesy. As supplementary sources of knowledge concerning drug action we have recourse to cases of poisoning, overdosing, and animal experimentation.[2]

The domestic fowl is ten times less sensitive to strychnine than are other birds weight for weight.[3] The guinea-pig is very insensitive to it. To horses and pigs aconite is edible, yet poisonous to man. Ipecac does not cause emesis in the frog, is comparatively without action on rabbits, yet is strongly emetic to dogs and man.[4] These facts show the fallacy of attempting to reason out pharmacology by analogy.

That the human organism upon which drugs are to be tested must be healthy is soundly logical and is the published opinion of allœopathic authorities. "When we administer our remedies to invalids the symptoms of the natural disease then existing, mingling with those which the medicinal agents are capable of producing, the latter can rarely be distinguished with any clearness or precision."[5] "A thoroughly scientific treatise would . . . simply show what the drug does when put into a healthy man."[6] We do not claim to produce, with drugs, actual diseases as nosologically catalogued, but merely symptom complexes which are similar to those of disease. For illustration, consider the pictures of acute arsenical or phosphorus poisonings as compared respectively with Asiatic cholera or acute yellow atrophy of the liver. Drugs have no primary curative action; their tendency is ever disease producing, one which disturbs the peace of the economy. Any "curative" effect which may be ascribed to a

---

[1] Krauss: Journal of the American Institute of Homœopathy. March, 1913, p. 942.

[2] As a remarkable instance of the magnitude of error which may result from overtrustful dependence upon animal experimentation, I cite the investigations of Bennett and of Dowdeswell upon coca and its now famous alkaloid. "From its action on frogs, mice, and rabbits, it gave no therapeutic promise of individual characteristic other than that it paralleled caffeine, theine and theobromine." Dr. Squibb, the leading American manufacturing pharmacist at that date (1884) even left it off his list of drugs. That same year Koller discovered its marvelous local anæsthetic properties. For further reference see: Lloyd, Eclectic Medical Journal, Sept. 1913; Edinburgh Medical Journal, vol. XIX, 1873; Lancet, 1876.

[3] Leube, Reicherts Archiv für Anat., 1867, p. 630.

[4] Cushny, ed. V, p. 398.

[5] Pareira, "Elements of Materia Medica and Therapeutics, vol. I, p. 89, 4th ed.

[6] H. C. Wood, "Therapeutics," 8th ed., p. 12

drug is secondary and really is not a property of the drug at all. It results merely from the over-action of the natural defenses of the body against the poisonous, sick-making drug. Assuredly no medicine administered to a healthy person will make him healthier, but in certain quantities, *cæteris paribus*, each produces similar effects upon all people; were it otherwise drugs would be too unreliable and dangerous to be of use in any method of medical practice. These symptoms and pathologic findings obtained from "provers" are recorded chronologically and then tabulated for reference. The most reliable and authentic symptoms are, of course, the most congruous or those which occur with greatest uniformity among the different provers. I realize and frankly admit that many of our provings are as yet imperfect, but every one must indorse this orderly and uniform method of ascertaining the effects of drug action.*

2. Individualization of the case, or, obtaining the "totality of symptoms,"—the *Krankheitsbild*. It is axiomatic that no two cases are alike, and the old school is coming to understand that it is the patient and not the disease which requires treatment. The acquisition of the "totality" means to secure a complete pathological grasp of the case, including every ascertainable fact, subjective and objective, aided by all diagnostic methods known to present day science. "Aside from the totality of symptoms it is impossible to discover any other manifestation by which diseases can express their need of relief. Hence it undeniably follows that the totality can be the *only indication* to guide us in the selection of a remedy."†

3. In our drug treatment of the case we apply our knowledge of drug pathogenesis, as obtained under the guidance of the first-named principle, according to the rule of symptom-similarity. This is the crucial tenet of homœopathy and by its truth or fallacy we stand or fall. Whether or not *similia similibus curentur* is a natural law or a working hypothesis is beside the point. It, or preferably symptom-similarity,‡ serves as our rule and guidepost in the selection of remedies. "Regular" means to be governed by a rule. Recognition of a rule and steadily following it wherever it is applicable are evidences of true science. Still, the old school, which ostensibly refuses to follow any rule, dubs itself "scientific" and homœopathy "irregular." We claim that this essential of the homœopathic method is identical in its aim with the efforts of all scientific medicine—the production of immunity. The goal of the entire profession is to reinforce the natural defenses of the body,

* See Organon ed. V., No. 19—21.

† Organon ed. V., No. 18.

‡ See Berliner homœopathische Zeitschrift, Oct. 1912—"Zur Kritik des Ahnlichkeitgesetzes" by Paul Dahlke.

to elevate to the optimum degree the resistance of the patient and to help sustain that high level. Our branch of the profession employs vaccines, sera, *et cetera* in thus assisting nature and only differs from the allœopathic school in its method of using drugs. A discussion of Röentgen ray and radium therapy would be peculiarly germane in this connection. It is, however too widely known and too freely acknowledged to necessitate any elaboration of the fact that these agents are used in less concentrated form and for shorter periods, (small doses), in the treatment of conditions similar to those which in concentrated forms and long exposure, (large doses), they are able to produce.

The point at debate is, therefore, whether or not our pharmacotherapeutic method is one which tends to produce immunity. Recently a procedure has been developed which lends itself to the partial elucidation and proof of our contention. The opsonic theory as introduced by Wright has led to the perfection of a method of obtaining the opsonic index which affords, with clinical results, a way of measuring the efficacy of vaccines in raising the resistance to bacterial infection. It occurred simultaneously to several investigators that the influence of drugs might be similarly susceptible of demonstration. Each was ignorant of the work of the others: all came to well nigh identical conclusions. "Wheeler, in London, worked part of the time with Wright, by whom, in fact, some of the observations were made. His results are, therefore, of unusual interest. In the course of his work with the opsonic index and bacterial inoculations Wheeler found his index to tuberculosis to be uniformly low averaging about .7. It was suggested by Wright that he take a few treatments of tuberculin. Wheeler, however, feeling comparatively well and wishing to make a few experiments, carefully studied his case from the homœopathic standpoint and decided that phosphorus was his indicated remedy. On March 22nd and 28th the index was .75; from April 1st to 9th one dose of phosphorus 3x was taken daily. On the 4th the index was 1.43; on the 8th 1.57; while on the 11th, two days after the cessation of the drug, it had fallen to .74."* A second experiment in April showed a less striking rise—the highest point reached was 1.04. On May 6th the index was .77; phosphorus 3x was taken daily for three days and on the 10th the index was 1.8, falling to .7 three days later. These figures illustrate but a part of Wheeler's findings. E. A. Neatby, London, found his index on three successive days to be .86, .81 and 1. One-twentieth of a grain of phosphorus was taken. In about four hours the index was .75, in twenty-four hours is was 1.25, and in

* Watters "Homœopathy and Immunity." North American Journal of Homœopathy, July, 1909.

two days was 1.59. It later fell to his normal. This illustrates the typic negative phase so often observed immediately following treatment. His index to staphylococcus remained unaffected throughout. Dr. Burrett of Ann Arbor has investigated the relation of echinacea to the staphylococcus index. Dr. Watters of this city has made experiments which demonstrate the connection between hepar sulph., (a widely used antisuppurative remedy, calcium sulphide) and the staphylococcus index. Considerable work has been done by Dr. C. Wesselhoeft, 2d, in Boston in the Evans Memorial, upon the effect of quinine on malarial plasmodia.* His work up to the present time has confirmed that of Rosenbach. I quote his modest conclusion. "If quinine acts as a direct parasiticide it does not seem to destroy the parasites outside the body as quickly as we should expect from the definite effects produced on these organisms after small doses administered to the patient." This in spite of the fact that the plasmodia are subjected to unfavorable conditions other than the presence of quinine.

Along another line of research R. R. Mellon† of Ann Arbor has demonstrated that baptisia has a marked influence on the production of agglutinins against the typhoid bacillus. He has also shown that veratrum viride is capable of raising the pneumococcus index. Preliminary work has been done in the Evans Memorial in regard to the influence of bryonia and of phosphoric acid on the production of typhoid agglutinins. My series of experiments is incomplete and will require careful checking up, but the results to date indicate that those drugs do influence favorably the natural defense of the body toward typhoidal infection. In terms of Ehrlich's side-chain *theory* it appears that poisonous substances, drugs or bacterial toxins (antigens), when introduced into the body in small doses stimulate the production of antibodies; these, produced in excess of what is necessary to overcome the mild "artificial" disease, are free to neutralize the toxins, or to sensitize the the bacteria which are causing the "real" disease. In other words, they tend to produce immunity.

All of the above-mentioned drugs are widely used in those infections with which they have experimentally been placed in correspondence.

As relating to clinical "experiments" we have the matter of statistics. There has never come under my observance any tabulation by an allœopath of the rate of mortality and duration of illness as illustrating the comparative efficacy of old school and homœopathic treatment. Had such records been derogatory to homœopathy assuredly they would have been published. How-

* New England Medical Gazette, February, 1913.

† Medical Century, June, 1913.

ever, the most cautious construction must be put upon the volumes of figures which have been collected during the past century, and in view of this fact I have appended merely some suggestions which must lead you to think, perhaps influence you to examine some available records.*

I distinctly do not offer the above laboratory evidence as incontrovertible proof of the validity of homœopathy. I do not ask anyone to accept our results or my assertions on faith. I do ask that before one scoffs at or denies them, he may be able to present convincing proof that our records are false or that experiments of his own have shown negative or contrary results. If you will be dissidents at least be as ready with conclusive demonstration of the truth of your averments, as is Dr. Nichols to state that we make "an impression by unbridled exaggeration, or dogmatic reiteration of unproved assertions,"—a censorious imputation which I have striven to avoid.

These three principles—the testing of drugs upon the healthy human body; the acquisition of a complete pathological grasp of the case; and the application of drug to disease in accordance with the rule of symptomsimilarity—are the *only essentials* of homœopathy. There remain a few valuable corollaries. First as to the "minimum" dose.† Mark you, I reiterate that the dose question is absolutely independent of the essence of elementary homœopathy, nevertheless in adverse criticism, the "infinitesimal" dosage is invariably held up to ridicule as being one of the chief doctrines of our school. That this attitude obtains is due in part to insufficient study by the critics, and in part to the practice of the "high potentists." My personal stand is on the ground of energy as inseparable from matter, but time and experimentation can alone decide whether or not the beliefs of the high potentists are justified. The fact remains that posology can never serve as an index of the principles of drug-therapy. If an ounce of epsom salts is given to relieve a particular kind of diarrhœa, the principle involved is strictly homœopathic, although the immediate results would hardly sanction the practice. It was experience, empiricism if you will, which showed Hahnemann the necessity of reducing the usual doses of his time, when drugs were given with remedial intent. It was experience which showed the necessity of reducing the dose of tuberculin, an agent now recom-

---

* Massachusetts State Sanatorium for Tuberculosis.

"Apparently cured," and "arrested"	all cases
Under allœopathic treatment	52 per cent
Under homœopathic treatment	62 per cent

H. C. Clapp—New England Medical Gazette, April, 1911.

Scarlatina (uncomplicated)

Boston City Hospital—South Dept. 1910, '11, '12. Mortality 4.99 per cent.
Mass. Homœopathic Hospital—West Dept. 1910, '11, '12. Mortality 2.35 per cent.

† See Organon No. 279; note the proviso.

mended in amounts of .000 000 000 01 gm. Observers found that large portions caused an aggravation of the disease, and that too frequent repetition was harmful. These are facts which homœopathy has long recognized: to reduce the amount of medicament that serious aggravation may be avoided; and to shun repetition of the dose until the cessation of improvement from the preceding one.

I need allude but briefly to facts illustrating that *die milde macht ist gross,* or that drugs in extremely dilute solution and undeniable minute subdivision markedly influence biologic phenomena. Copper in the proportion of 1-1 000 000 000 parts of water is sufficient to destroy some of the simpler algæ. (Naegeli). This dilution is the exact equivalent of the 9X (9th decimal) in homœopathic nomenclature. In a dilution of 1-700 000 000 copper acts most injuriously upon the germinating processes of wheat grams. (Coupin). Darwin demonstrated the effects of ammonium phosphate in dilution of 1-20 000 000 on the leaves of Drosera rotundifolia. Similar studies have been made with the salts of manganese and uranium. Sand found that arsenical solutions in proportion of 1-1 000 000 destroyed infusoria; also that a solution of 1-10 000 000 markedly favored their segmentation. Schulz showed that corrosive sublimate in attenuation of 1-20 000 checked or destroyed the growth of yeast cells; but when the dilution was raised to 1-500 000 and higher the yeast cells proliferated much more actively than in the absence of the corrosive sublimate. Thus Schulz demonstrated the application to pharmacotherapy, of the truth discovered by his colleague at the University of Greifswald, Prof. Arndt; who first formulated what he denominated a fundamental biologic law: viz., "strong irritants destroy vital processes, moderate ones favor them and minute ones arouse them to their highest activity."* Note the exquisite parallelism between this indubitably proven "law" and the principle of *similia:* thus is one truth promulgated by the correlation of other truths about it.

The theory of dynamization or dematerialization is accepted only by a very small minority of the school. The deliberately chosen opinion of almost the entire homœopathic profession is admirably illustrated in articles to which I refer below.† Mechanical subdivision of drugs, as opposed to dynamization, accomplishes two things. By enabling us to give a small dose, safety is obtained; effectiveness by providing as many points of contact as can possibly be secured between the medicinal particles and the

* See W. Wesselhoeft, "The Dynamic Power of Drugs." New England Medical Gazette, Jan. 1906. Also Kroener, "On the Effects of Matter in most Minute Subdivision."

† Rand. "The Theory of Dynamization, is it Scientifically Tenable?" Journal of American Institute of Homœopathy, Dec. 1912, Sutherland, "Dynamization or Dematerialization." New England Medical Gazette. June, 1887.

living tissue or absorbent surface, for chemical activity is directly proportionate to the degree of ionization. It is, however, unnecessary to discuss this phase of homœopathy further.

Another contention of our school is for the use of the single remedy. It has largely been adopted by the old school because of the inexorable logic and superior clinical results which commend it. The proverbial uncertainty of medicine and disparity of opinion is in great measure due to the practice of polypharmacy which is incompatible with common sense and utterly at variance with the elementary rules of scientific investigation. Only when two or more drugs have been tested simultaneously on the healthy human body is it justifiable to prescribe those drugs in combination."*

The "psora" theory, another which is as the red rag of the familiar saying, contains a modicum of truth, but is widely rejected by our profession. It is not in the least relevant to homœopathy so a discussion is beside the mark.

That these tentative conjectures of Hahnemann's respecting the causes of various phenomena, should be held up as cardinal doctrines of our school, is manifestly unfair and wholly out of court. His explanations, i. e. his philosophy, may contain mistakes but his method is a distinct achievement. Plato, Descartes, and Kant and Hegel in parts of their philosophies have embodied some of the most gigantic errors of the human intellect, yet these men are giants along the line of human thought. It is their effort, their working method, and not their conclusion which receives and will forever merit our admiration.

Dr. Nichols categorically places Samuel Hahnemann among the founders of medical systems who are composed of "the most ignorant, illiterate, and unqualified persons." This is a serious rebuke to Sir John Forbes, one time president of the British Medical Association, who said of Hahnemann: "He was undoubtedly a man of genius and a scholar, a man of indefatigable industry and dauntless energy,—the remote if not the immediate cause of more important fundamental changes in the practice of the healing art than have resulted since the days of Galen himself." The 1899 antihomœopathic pamphlet which appeared under the imprint of the American Medical Association stated: "there are few men in the world today as well versed in the history of medicine as Hahnemann was." Hufeland considered him "one of the most distinguished of German physicians," and "the best chemist among the physicians of his day." Mott, another contemporary, testifies, "Hahnemann is one of the most accomplished and scientific physicians of the present age." He pursued studies at the famous educational

* See New England Medical Gazette, June, 1913. p. 306.

centres of Europe; was a thorough master of six languages, proficient in three others. Coincidently with Pinel he instituted at Gaergenthal, the modern humane treatment of insanity. He published an encyclopædic work on pharmaceutics which was long the standard, and between 1777 and 1832 there appeared one hundred and fourteen books, essays, and translations as a result of his literary industry. Among other things he invented a delicate test for the detection of lead in wine which is in use today; a method of preparing soda from common salt, and a simple process for the manufacture of vinegar. I state these few facts merely as my reasons for *not* judging him an "ignorant, illiterate or unqualified person." It is, moreover, ill-considered to set forth as a fact that homœopathy is "actuated by or is the product of theorizing and speculative methods of thought." Following his famous experiment with cinchona bark in 1790, Hahnemann spent six years in research and in collecting a vast deal of corroborative evidence, before making even a preliminary announcement of his principles; it was *twenty years* before they were elaborated in the first edition of the Organon. What modern investigator can equal his intense eagerness for scientific rectitude? He thoroughly searched the existing medical literature, and laboriously performed the colossal task of proving ninety drugs upon himself and family; he had no "wealthy endowments or many trained investigators to delve out one by one little fragments of truth," but he cannot in justice be said to have erected his principles "on a slight foundation of fact or of pure fancy." He was eminently fair in giving credit to those of his predecessors who had vaguely sensed the truth of homœopathy.* He did not invent the word "allopathy" which so unfortunately for Dr. Nichols' peace of mind has been given legal status on the New York and Penn. state examining boards, but he did coin the word "allœopathy."† He did *not* deny the healing power of nature.‡ As to his method of administering infinitesimal doses by smelling sugar pellets. Medication by olfaction is an established procedure in the use of amyl nitrite and a few other agents; their rapidity of effect is astonishing. As a conspicuous instance of the remarkable absorptive power of the mucous membrane of the upper respiratory and alimentary tracts, simply recall the effect on the non-habitué who smokes his first cigar. He does not inhale the smoke, and the toxic agents are present only in very minute quantities yet they act quickly and convincingly. It is thus with nearly all of Hahnemann's minor hypotheses: they

---

* Organon pp. 45 and 62 (No. 40).

† Journal of A. I. H., June, 1913, p. 1293.

‡ Organon No. 43 "—demonstrates how nature may accomplish cures."
No. 47 "—cure, according to the process observed in the course of nature."

contain elements of truth which have clear cut utility, only discernible, however, if we "read not to contradict and confute, nor to believe and take for granted... but, to weigh and consider."

Hahnemann was persecuted and exiled through machinations of the apothecary trust; showered with abuse and contempt by his contemporaries, chiefly because he denounced blood letting, and only when isolated in the scholastic narrowness of Coethan, did he become intolerant and demand rigid adherence to the hypotheses which were the product of his senility. (He died in his eighty-ninth year). The third and preceding editions of the Organon are sound, based upon careful experiment, and of enduring worth. Read with candid mind and judge for yourself. The later editions are rather impaired by his interpolation of theories, but the structure and substance of his essential argument were complete before they appeared. The illiberality of his senescence is conspicuously inconsistent with the intellectual breath so characteristic of his earlier career. Be that as it may, in the A.M.A. pamphlet to which I have referred there appears this sentence, "Homœopathy has done a noble work; it has served its purpose well. Look back a hundred years to the time of its birth, and contrast the methods of practice then in vogue with those which are in favor today, and tell me whether a stupendous revolution has not been wrought, and largely through the instrumentality of Samuel Hahnemann." To a man of influence so great as this should be awarded an honorable place in the hall of fame. Dr. Bassler calls him charlatan; Dr. Nichols says he was illiterate and unqualified. I bear no malice; it is merely my humble opinion that neither has acquired the requisite qualifications to judge.

The charge of sectarianism is made. Even were it merited the discredit of establishing homœopathy as a sect rests with the allœopaths. Note that Hahnemann's Organon is not an Organon of homœopathy. It is an Organon of the Art of Healing, and the principles therein set forth were offered to the whole medical world; no effort was made to keep them as the exclusive property of a small body of men. Still, Hahnemann, among medical reformers was welcomed with unprecedented hostility of the most persevering and virulent type. His early followers were relentlessly harried; the censorship of the medical press was allœopathic, and antihomœopathic literature was permitted publication, while no rejoinder by the supporters of our school was allowed to appear,—a condition which if it obtained today would be designated as revolting and uncivilized. If this tyranny and persecution were less atrocious than the Spanish Inquisition it was not for lack of good intention on the part of those who antagonized and endeavored to exterminate all homœopaths. Even as late as 1871 the

Massachusetts Medical Society expelled eight members simply because of their belief in homœopathy. This injustice can only be righted by the reinstatement of those names upon the membership roster. It is plain then that if we have wished to live and act in accord with what we think is right our only possible existence has been a more or less isolated one. *Sic tensio et vis.* Appraised by what it has withstood homœopathy is massive in its strength. Today it seems most discouraging that the intellectual and ethical impropriety committed by Drs. Nichols and Bassler should be allowed to obstruct the apparent desire, manifested by many of the broad, liberally educated members of their school, to accomplish the goal of medical unity.

I have endeavored to outline the principles of homœopathy; excepting blemish of diction they are truthfully stated. No man in exhortation to study or in urging investigation of them can be accused of questionable motives—never mercenary ones, for if the whole medical profession would use our method where it is applicable we would be left without the staunch support now afforded us in preference by our clientele.

It is the bounden duty of scientific medicine, to impose its exacting criteria and to investigate by laboratory and clinical experiment the validity of our tenets. Even were it conceivable that the present body of 15000 homœopathic practitioners—educated American citizens—might be laboring under the burden of self deception, assuredly it has no desire to nurse into perpetuity any error, if it be an error, maintained under the guise of professional liberty.

No school can be "scientific" and at the same time be indolent, ignorant, or prejudiced, for these are qualities which stifle scientific investigation. May the American Medical Association meet in the courteous and fair-minded spirit in which it is offered, the proposition* of the American Institute of Homœopathy. If homœopathy can be overthrown beyond reasonable doubt there will be no more cause for partisan segregation; if upheld and accepted then its founder and truly loyal adherents who have fostered it until this day, shall have received their just and long awaited reward.

535 North Dearborn St., Chicago, Illinois,
October 4, 1913.

Dr. S. B. Hooker,
Boston, Mass.

Dear Doctor Hooker:

We have read your article which, according to the title, is a criticism of two recent attacks on homœopathy. One of these so-called attacks—the article by Doctor Bassler—appeared in another journal. We had heard

* See Journal of A. I. H., June, 1913, p. 1352.

nothing about this paper before, and have yet to see it; so the probability is that there is no *united attack*. However, if you desire to reply to Doctor Bassler's article, you should publish your reply in the journal in which the article appeared.

As to the matter we published last February by Doctor Nichols: This was a general discussion of the sectarian question and referred incidentally—very incidentally—to homœopathy. Possibly Doctor Nichols might have used more conservative language when speaking of homœopathy. Be that as it may, it is rather late to be answering his statement. As a matter of fact, however, you are not answering his statement, but are discussing the question of homœopathy as a method of cure, bringing up the same old arguments which were so familiar many years ago.

So far as The Journal is concerned: It has made no attack on either the homœopathic or any other sectarian school for over a decade, the only exception being the incidental mention of it in Doctor Nichols' excellent paper. There has been practically nothing published on the subject since the very conservative paper by Doctor Quine, which appeared some twelve or fourteen years ago. And we do not care to open the question again as we would be doing if we published your article. We might say, further, that had the statement made by Doctor Nichols been noted, modification would have been suggested.

Very truly yours,
EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION.
(J. F. W.)

80 East Concord St.,
October 10, 1913.

The Journal of the A. M. A.,
Editorial Department.

Mr. Editor (J.F.W.):—

Your remarks in regard to my recent communication—"A Criticism and a Reply to two Recent Attacks upon Homœopathy"—have just been received. There are several points upon which we naturally, in our present different environments, disagree. Concerning these, I wish again to attempt to make clear my view point in order that we may not be wholly at cross purposes. I shall take them up seriatim as they appear in your letter.

1. You speak of "these so-called attacks." I am constrained to be perverse and still to continue to regard them as "attacks." When, in the course of any article the author states that no medical system "has a scantier basis of fact or reason, a poorer excuse for existence, or a more fantastic set of principles and methods, than homœopathy," and states that the "general attitude of the school . . . . smacks of insincerity"; when he devotes columns to the various methods which may be used to eradicate sectarianism, and specifically includes homœopathy among the sects, I cannot do other than construe such tactics as being an "attack," and an attack upon homœopathy. Furthermore, I am sure that the most approved definitions of "attack" will confirm my choice of the word.

2. The statement that you have neither seen nor heard of the paper which was published in the Medical Times, as urged in substantiation of your assurance that there probably is no *united attack* (sic), is irrelevant, because I made no assumption that there was a united attack. My words were that "the attack against the so-designated sectarians has continued," which is undeniably a recital of fact.

3. I had long ago anticipated your advice as to where I should publish my reply to Dr. Bassler's article. In some respects it is merited, but, my preliminary remarks, aside from three of four very short references to Dr. Bassler's article, which served to illustrate certain points not so strikingly brought out in Dr. Nichols' essay, were exclusively confined to the article which appeared in the pages of your journal. Perhaps a more cogent reason for sending the reply to you was because of the extremely

widespread and shameless ignorance of homœopathic principles which prevails throughout the ranks of the old school. For partial confirmation of this I refer you to the letter of J. D. Arnold on page 539 of the Journal of the A. M. A. for Feb. 15, 1913. He expresses appreciation of Dr. Nichols' "admirable treatment . . . . of the burning subject of medical sectarianism," and suggests that inasmuch as it is "so desirable that all practitioners of scientific medicine acquire a *true understanding* (my italics) of the subject," it would be well to "print Dr. Nichols' article in pamphlet form and scatter it broadcast among the practitioners of the United States." It was solely for the purpose of affording a *true understanding* of homœopathy (still classed as sectarian) that I prepared my brief outline of its principles. It was only natural that in selecting a publisher I should have chosen the journal which contained the article at which most of my remarks were directed, and, the journal of the larger circulation in order that a *true understanding* might be more widely disseminated. There are, fortunately, still a few people in this country who wish to hear both sides of a question.

4. Dr. Nichols gave a "general discussion of the sectarian question and referred incidentally—very incidentally—to homœopathy." In his incidental reference to homœopathy he made some very misleading statements. It is true that "he might have used more conservative language," but he didn't. I also gave a general discussion of homœopathy and stated specifically—very specifically—that my objects were "to defend the rational homœopathy of today" and "to urge an unbiased investigation of homœopathy." I made no attempt to answer his article *in toto*. As to my tardiness, I fortunately had the foresight to explain that in my first paragraph.

I must again differ with you, by denying that I did not answer his statement. I carefully and thoroughly perused the article,—which in some respects I agree was excellent,—and in various parts of my answer explained or refuted the points which Dr. Nichols attempted to make in his discussion of homœopathy. You must grant that an effort to make my explanation clearly intelligible, necessitated a discussion of what the principles of homœopathy really are. I do, however, most humbly apologize for causing any waste of time which you may have incurred in reading the "same old arguments which were so familiar many years ago." I honestly believed that I had brought out some new evidence, but such not being the case I shall in the future earnestly strive to avoid similar self-delusion.

It is very gratifying to note in your closing sentence that you would have suggested modification of some points in Dr. Nichols' article, had they come to your notice. Such an attitude is eminently equitable; why not make it apparent to others than

Yours sincerely,
S. B. Hooker.

New York, Oct. 16, 1913.

Dr. Sanford B. Hooker, 80 E. Concord St.,
Boston, Mass.

Dear Doctor:—

I am in receipt of your paper replying to two attacks upon Homœopathy. I am returning it, because the forthcoming issue will contain a reply to Dr. Bassler's paper, and I do not care to have the *Times* further involved in the controversy.

I think you will have no difficulty in having this paper published in one of the Homœopathy journals.

Very truly yours,
THE MEDICAL TIMES.
H. S. Baketel, Editor.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 2-E. Diagnosis: Traumatic Neuritis.

Patient is a boy of 18 years, born in Canada. He came to Boston a year ago, at which time he says he was in perfect health. He is of average intelligence, but did not like school and did not go beyond the grammar grade, which he finished at 17. He was first seen November 1913 in consultation, because of involuntary inco-ordinate spasm of right arm and shoulder. His occupation is that of driving a grocery team.

It appears that two weeks before, he had had an accident. It was raining hard, and he came in from his team thoroughly wet. He went directly to the cellar, where he reached out to turn on the light from an electric switch. The porcelain cap of the switch had been broken, and to hold it together a piece of wire had been wound around it. As he touched the switch the middle joint of his little and ring fingers of the right hand came in contact with this wire and being well grounded by the wet shoes he received a large amount of electric current which for a moment produced tonic spasm of the fore-arm muscles, preventing him from immediately letting go. At the same moment he felt the pain of the current and much prickling as from needles in his wrist and arm. The point of contact showed no burn, nor was there other effect than stated at the time. He went upstairs and kept on with his work that day, though the pain in his arm and shoulder was severe. He says it was hard to write his orders and he kept dropping his pencil. He could, however, handle goods all right.

The next day the pain had stopped and the fore-arm began to twitch and jerk; two days later the pain had returned, and for this he consulted his doctor, who thought he might have la grippe, and the next day, four days after the accident, had him give up his work and go to bed. The patient now had some temperature, and grew steadily worse. An area of obscure breathing with some dullness on percussion was discovered in the apex of the right lung, and on both arms a series of red papules appeared irregularly scattered over a less red surface. He had a cough and some night sweating, and the doctor thought that there might be a tubercular process, although the sputum did not show any tubercular bacilli. Examination of the heart at this time did not reveal anything abnormal. The pain in the right arm and shoulder and the involuntary inco-ordinate muscle spasm increased and extended somewhat to the right leg.

When seen about two weeks after the accident, the patient

looked pale and sick, with dry, red lips covered with herpes. The right side of the face twitched somewhat and the right arm and shoulder were in almost constant motion. This continued at night, making it almost impossible for him to sleep. There was complete wristdrop on the right side. He could not use his hand grip to squeeze with, and the fingers of the right hand, especially the ring and little fingers, were in continuous athetoid motion. Sensation was markedly blunted over the area of the ulna nerve. After two more weeks, that is, four weeks from the time of the accident, the arm had stopped jerking though the extensor muscles were still paralyzed, but the leg twitched and jerked somewhat. However, the patient was sufficiently better to return to work for over a week, when he had to go back to bed again for two weeks. This time he had more trouble in using his right leg which is still slightly weak. At this time he also had a slight thickness of speech, which was, however, transient.

An examination made the last of January, 1914, shows both knee jerks to be increased, the left being distinctly irritable. The planter reflexes not obtained on the right but actively upward on the left. No ankle clonus on either side. The right shoulder muscles could all be made to work under effort, but were very feeble. He gradually got his arm out straight but could not raise hand at wrist without reinforcement, although, all the finger movements could be performed. Sensibility to point was absent over the back and front of the ring and little fingers of the right hand and extending down to the wrist in the distribution of the ulna nerve. Measurement at the largest part of fore-arm showed no atrophy. Rotation of right fore-arm. O. K. Arm extended forward with effort, and patient says it causes pain in the right pectoral region. Can perform all movement of the hand and wrist under effort, but extension of the thumb and spreading of the fingers is especially difficult. Pulse is 68; temperature 99.3. Heart action is somewhat tumultuous and there is a systolic murmur at the apex. The heart is not enlarged.

Discussion.

This patient presents a somewhat difficult problem. He was a supposedly healthy boy, when on the same day he received two distinct traumata. First a severe wetting which lowered his resistance and made him liable to infection either from without or the awakening of any latent process from within. Second, in his wet condition he received the major part of a 110-volt electric current in his right ulna nerve by contact with a wire and a grounding through his wet shoes. Either of these things

would have been a sufficient justification for an acute illness. The exposure and wetting resulted, after the usual three days, in a severe grippe-like cold with fever and a suspicious spot in his right lung apex. Whether or not this was really tubercular or a pneumonic infection from some other organism has not been settled, as repeated search has failed to show any tubercular bacilli, but the fact that the temperature was still fluctuating three months later is decidedly suggestive, and the boy still looks pale and sick.

The more difficult problem is the question, what caused the spasm of the right arm? In settling this point it is first necessary to recall the heart findings. Two of us satisfied ourselves during the first two weeks that the heart sounds were only those of exaggerated action such as might be expected with the fever. The valve sounds at that time were certainly all right. Three months later, however, there is a distinct murmur, systolic in times, loudest at the apex and transmitted to the axilla. It is certainly true that the tubercular bacilli rarely causes endocarditis, while the grippe bacilli often does, and also that this endocarditis was a later development. Certainly, too, this low grade inflammation of the heart might well account for the slight rise in temperature (99⅖). All this is important, because the first question to be settled regarding the arm condition is whether it was due to a central or a peripheral lesion. If central, did the heart lesion exist before and give off a small embolus, or was there a local inflammatory spot in a cerebral vessel near the thalmus which served as an irritant? It seems as if both these hypotheses could be ruled out, not only because of no evidence of an apoplexy or heart lesion, but also because inco-ordinate muscle spasm is always a late result of a cerebral lesion. Extensive cord lesion is at once ruled out by the fact that the cord functions below where the lesion might have been, *i.e.*, in the 8th cervical and 1st dorsal segments where the ulna nerve comes off, were intact, also by the fact that the numbness which at first extended over the entire area of distribution of the ulna nerve later settled down to just its peripheral distribution in the hand. On the other hand there can be no doubt but that these cord segments were made markedly irritated by the electric shock.

In Church and Petersons "Nervous and Mental Diseases" under cord lesions they say:—"If the lesion is not a distinctive one but irritative in its effects, spasm and rigidity may be present. These are usually attended by clonus in the large muscles whose tendons pass over the joints; they are present in all levels below the upper limit of the lesion, but more especially in the lower limbs."

That there was an organic lesion, is proved by the fact that the athetotic contraction continued at night during sleep. That this lesion was neuritis, with its point of greatest intensity in the ring and little fingers but extending to the cord level of origin of the ulna nerve, is evident, first, from the distribution of the area of numbness to point, and second, by the fact that there is a remaining evident weakness of the muscles supplied by the segment of the cord and by irritable reflexes on the opposite side. Finally, it is fair to assume that the electric shock was the cause of this neuritis because the greatest permanent disablement and intensity of symptoms was at the point of contact with the wire. There remains some flaccid paresis in the muscles supplied by the ulna nerve, without atrophy which means that the cells of origin for this nerve in the anterior horn on the right side of the cord have undergone degeneration, a selective process in which but a few neurones suffered and a good though not absolute recovery can be predicted in the course of months. It is possible that legal action may be taken in this case.

Case 1-E reported last month, has stood trial and the plaintiff was awarded $2700 damages.

COUNCIL ON MEDICAL EDUCATION NEWS-LETTER.

The Council on Medical Education of the American Institute of Homœopathy, to which was given the propagandistic work of the Institute, has finally shown that it was appointed for a purpose and has a mission. We have heard of people who spent so much time in getting ready to do a job that they had no time to do it, busy but not industrious. We began to fear that the Council was that kind of bird.

But here is evidence of real practical, dividend-earning work. This "News-Letter" is published monthly and will be sent broadcast to the press of the country to be used as items of news. Working through the Associated Press as well as the press generally, it should bear good fruit. The last issue of the "News-Letter" contains among other items, the following:

Medical Advance in Brazil.

The Government of Brazil supports an institution for instruction in Homœopathy which has made great progress among the scientific and government officials of the great South American Republic.

Serum Therapy is Homœopathy.

Professor Grasset of the celebrated Medical School of Montpellier, France, says in his new book on therapeutics just published (1913):— "Serum Therapy treats similia similibus. It is a reconstructed form of Homœopathy."

A Wonderful List of Patrons.

Among patrons of Homœopathy a long list might be made, but the following names are sufficient testimony of the benefits and success of this system of Medicine:

Henry W. Longfellow, William Cullen Bryant, Nathaniel Hawthorne, Julia Ward Howe, Elizabeth Palmer Peabody, Elizabeth Stuart Phelps, Louisa May Alcott, Thomas Bailey Aldrich, Harriet Beecher Stowe, Washington Irving, Wendell Phillips, William Lloyd Garrison, Thomas Wentworth Higginson, Thomas Starr King, Henry Ward Beecher, Peter Cooper, Horace Greeley, Cyrus Field, Samuel F. B. Morse, H. J. Raymond, Chester

A. Arthur, Roswell B. Flower, Roscoe Conklin, Leland Stanford, Elizabeth Cady Stanton, Lucretia Mott, Susan B. Anthony, Sunset Cox, Thomas B. Reed, Theodore Tilton, Mark Hanna, Elihu Root, W. H. Harrison, Joseph Jefferson, Edwin Booth, P. T. Barnum, Wm. J. Florence, Mrs. John Drew, Lillian Nordica, Fanny Davenport, Clara Morris, Adelina Phillips, H. C. Barnaby, Edwin Forest, Generals Geo. B. McClelland, H. W. Halleck, N. B. Banks, Gen. N. B. Forest, Gen. P. T. Beauregard, Howard H. Furniss, Geo. Innis, Chief Justice Waite, Irving M. Scott, Claus Sprekels, George Westinghouse, H. M. Flagler, Helen Hunt Jackson, E. P. Roe.

No Remedy for Pneumonia.

Dr. Arthur Bevan of Chicago, at a meeting of the American Medical Association, stated, "Gentleman, we must admit that we do not have a single remedy with which to combat pneumonia." While according to a large array of statistics, published in a recent number of the Medical Century the allopathic death rate in pneumonia is from 20 to 45 per cent, under homœopathic treatment it is only from 3 to 12 per cent, according to the age of the patient and severity of the attack.

The Oldest Medical Society.

The oldest National Medical Association in the United States is not the American Medical Association. The homœopathic profession organized the American Institute or Homœopathy two years before the allopathic society was formed.

The Game But Not The Name.

The following from an editorial in the London Medical Press, (allopathic) is interesting:—"The whole of serum and vaccine treatment is but an adaptation or rather an illustration of the homœopathic law." The editor further thinks that inasmuch as the name Homœopathy is the proverbial red rag to most allopathic practitioners, the term "Single Drug Therapy" might be substituted and the doses be spoken of as "Microscopical." This is some acknowledgment of the desire to get rid of the thorn in the side of official medicine, which is known to everyone as Homœopathy.

A Beneficent Gift.

The British Homœopathic Association has received a gift of 5000 pounds sterling from Mr. Otto Beit to start a fund the proceeds of which are to be devoted to research in which problems of medicine, particularly those, the solution of which is likely to throw light upon the range and mode of action of the homœopathic law.

Increase in Efficiency.

The service maintained by Montgomery Ward & Company of Chicago has measurably improved and the cost of maintenance has decidedly lessened since the medical matters of that great firm were placed under homœopathic control. Another large concern that employs homœopathic service is the Fort Wayne, Indiana, Electric Works.

Homœopathy in Universities.

A number of leading Universities of the country have Homœopathic departments and others are contemplating adding the same in the near future. At present the school is represented in the State universities of Michigan and Iowa, in Boston University, in the University of Kansas City and in Baldwin University in Ohio.

A Valuable Property.

A recent gift of $100,000 for a new memorial surgical hospital has been received by the Hahnemann Medical College of Chicago, and not long ago the Trustees of this institution received the gift of an entire block of property which was also valued at $100,000. The entire value of the Hahnemann property in Chicago is $425,000 without encumbrance. The endowment fund is $537,536 and is increasing rapidly. Few medical schools have a better teaching plant.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

A FEDERAL EXAMINING BOARD.

There was held in Chicago in the last week of February a meeting of representative physicians of all schools from all parts of the Union. These physicians discussed matters pertaining to all phases of examination and licensing of physicians to practice medicine in the United States and its dependencies. That body was the Federation of State Medical Boards of the United States. The program is printed elsewhere in this number of the *Gazette*. Papers read at this meeting will be printed in future numbers.

These meetings were of the utmost interest in that they took up for consideration and will ultimately lead to the decision of the great question "Who shall practice medicine in the United States?"

One of the subjects which will interest nearly every physician was that of a Federal Examining Board. There are two ways in which such a Board could be established. One is by effecting a constitutional amendment making it possible for the United States Government to examine and license all medical graduates without respect to State rights in the matter. At present every State has a constitutional right to decide who shall or who shall not practice in its respective territory.

Second, by the establishment of a Board which by mutual consent of certain or all States may examine such graduates in medicine as voluntarily present themselves to such a Board. This could be established without any constitutional enactment, or, in fact, without any legal status.

Lieut. Col. John R. Kean, Medical Corps, United States Army, was the advocate of such a Board. To use his own words, "The need of some central examining Board which while determining the competence to practice of medical graduates, may at the same time set a uniform and reasonably high standard of medical education and confer the right to practice anywhere in the United States, has long been recognized. It was proposed in an editorial in the Journal of the American Medical Association as long ago as 1902. A little later in the same year Dr. William L. R. Rodman proposed such a Board to the Committee on National Legislation of the American Medical Association, and his report was adopted unanimously by the Committee." He further said:

"If, therefore, a Board should be appointed by the President of the United States for the examination of officers for the Medical Reserve Corps of a composition which would insure a high standard of requirement and the State Boards will agree to accept such a license without examination of holders of Reserve Corps Commission as is now done by many States for medical officers of the Government service, the thing is accomplished."

"It would not be necessary," he said, "to wait for a favorable action by every State, for if the scheme was taken even by a few States the rest should be expected to come into line as the desirability of the scheme became evident."

The idea of Lieut. Col. Kean is to utilize to a very great extent the present existing Medical Examining Board such as is now used for the examination of physicians for the Reserve Corps and to simply extend its function to cover all examinations for licensure in the United States.

In speaking of the composition of the Board, he said, "It should be composed of official members from the Government services of the Army, the Navy and the hospital corps; also a representative from the American Medical Association; one from the Federation of State Examining Boards, and (Note the words!) *if deemed necessary and desirable,* one from the homœopathic school."

The Editor of the *Gazette,* who was called upon to discuss the paper, said in connection with the latter sentence, "It might not be deemed *desirable* to have a representative of the homœopathic school on such Board, but it certainly would be deemed *necessary* by the fifteen thousand homœopathic physicians and the seven million of their patients in the United States."

There are a number of objections to such an optional Board. First, the examination would partake very largely of an Army complexion. Second, unless some provision was made for allowing a percentage of points to physicians of many years practice, it would make the obtaining of a degree by such physicians almost prohibitive. Naturally the young physicians immediately out of college would be the ones who would seek such an examination, as they would be best enabled to pass it. The result would be that the younger physicians of the profession would receive the right to practice anywhere in the United States, whereas the older physicians of rich and ripe experience would be limited to their immediate States. This in turn would tend to establish an aristocracy in medicine in that it would be giving certain rights and privileges to a few which would be unobtainable by the many.

If, therefore, there is to be a Federal Board, it should by all means be a compulsory one, rendering it necessary for every physi-

cian who practices in the United States to secure a license from such Board. That would do away with all class distinction either of age or quality. If the obtaining of such a license were compulsory, allowance would necessarily have to be made for physicians who have graduated at an early date.

There is now before the United States Legislature a Bill, numbered 8606, which has for its object the creation of a National Federal Examining and Licensing Board. Its essential provisions are as follows:

"That the President be and hereby is authorized and directed to appoint two medical officers of the United States Army with a rank of Captain or Major; two medical officers of the United States Navy with rank of Lieutenant or Lieutenant Major; two medical officers of the United States Marine Hospital Corps with rank of Chief and Lieutenant Commander, to a Board to be known as the United States Medical and Licensing Board."

"It provides for a salary of $4,000 per annum, per member for a period of four years, and a full time service. It further provides that all regularly licensed medical practitioners of medicine now holders of a medical diploma and a State license permitting them to practice in their respective State shall upon presenting such evidence to said Board and the payment of two dollars be permitted to practice in any state or territory in the United States. It also provides that all candidates who are not holders of a State license shall be examined by said Board, and that the candidate for such license shall fulfil all the requirements of the American Medical Association and shall be an American citizen, present a high school certificate or its equivalent, and shall have a Doctor of Medicine diploma from a Medical College in good standing as declared by the American Medical Association."

Either of the above proposed measures demands most careful consideration and watchfulness on the part of the homœopathic profession. In both, the standard set by the American Medical Association is the only one recognized. In the latter Bill no suggestion whatever is made for a representative of the homœopathic school on the Examining Board. Not for one moment will the fifteen thousand physicians of this country and their clientele of seven millions submit to the creation of so autocratic and one-sided a Board as contemplated in Bill No. 8606.

Therefore, Mr. Homœopath, be on your guard and let your representatives in the Senate and Legislature know to a certainty that you and your constituents will fight to the last ditch any proposed bill looking to the creation of a Federal Examining Board which does not allow for a full and fair representation of the homœopathic school!

A MIXTURE OF MEDICINE AND THE SEA SHORE.

Few physicians need to be reminded that the American Institute of Homœopathy meets at Atlantic City June 28 to July 3rd inclusive. The meetings at this popular resort are always well attended, but this year promises to eclipse all others both in attendance and in the general interest displayed. There is unmistakable evidence of widespread enthusiasm all over the country concerning homœopathy. It begins to take on the complexion of an old-time revival.

The lukewarms, the weak-kneed, the chronic "knockers," and the doubting Thomases seem to have received the hypodermic injection of coöperation serum and are falling over themselves to help boost the Institute. Even the fence straddlers who never seem to know upon which side it is best policy for them to light, have sent word that they are coming.

Numberless letters are daily coming to the officers of the Institute expressing the highest hopes and the profoundest belief that the coming meeting will far eclipse anything ever yet held under homœopathic auspices. It was a remarkably significant fact that out of one hundred and fifty physicians who were requested by letter to take the onerous task of pledging themselves to secure ten new members each and thus become the President's Cabinet of One Hundred, one hundred responded within six weeks, and up to date eighty have accepted with enthusiasm.

Nearly every Bureau Chairman has had responses from more essayists than he has room for on his program. North, South, East and West give evidence of the same intense desire to coöperate in making the coming meeting the greatest ever held. There is no alternative about the matter. We must do it and we must do it *now*. Our future existence hangs in the balance. That we can do and will do it there is no shadow of a doubt.

Dr. Costain, Chairman of the Transportation Committee, has his arrangements completed for a special splendid train from Chicago, which will bring all the members from the Northwest to Philadelphia, Washington, and Atlantic City en masse. The Philadelphia and Washington fellows have their plans completed to entertain by trolley and auto rides the arriving guests during the few hours stop allowed in the respective cities.

Boston will have a special car or train (we hope the latter will be necessary) to carry all the New England contingent so as to meet the Chicago bunch in Philadelphia and Washington and thus participate in the reception there rendered.

All of the meetings will be held in the comfortable, commodious, and fireproof hotel, the Chalfonte. The meeting rooms are far removed from the noise of the ocean and street traffic. Mem-

bers who are fortunate enough to secure rooms in the Chalfonte will not be obliged to leave the hotel for any of the regular meetings. Hence, be wise and engage your accommodations at once. The Chalfonte is conducted on the American plan exclusively; prices from $3.50 to $6.00 per day. Many concessions have been secured which will place all of the attractions of the Board Walk and beach at a nominal cost. Numerous delightful entertainments, including a deep sea sail, have been arranged for the guests without cost.

The last evening, Friday July 3rd, will be a frolic night, at which every visitor is expected to be present. Nothing like it since Barnum's time. Come to the Institute meeting; show your loyalty to the cause which gives you your bread and butter; learn something which will make you a better doctor; give something which will help the other fellow to be as successful as you have been. Let your patients know that you are progressive and are going for their benefit. Come and thereby get a change of environment and faces,—essentials for longevity. Come and have a bully good time, for you may not have it in the hereafter.

SOCIETIES.

PROGRAM OF THE SECOND ANNUAL SESSION OF THE FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES.

"Public Health Administration." Surgean-General RUPERT BLUE, United States Public Health Service, Washington, D. C.

Discussion by DR. JOHN A. WITHERSPOON, of Nashville, Tennessee, President of the American Medical Association.

"Should the Federation of State Medical Boards of the United States Recommend a Uniform Minimum Curriculum for Medical Schools?" DR. JOHN L. HEFFRON, Dean of the College of Medicine in Syracuse University and Member of the Medical Council of the State of New York.

Discussion by DR. JOHN K. SCUDDER, Secretary of the Eclectic Medical College of Cincinnati, Ohio.

"The Use of the United States Medical Services in Standardizing Medical Education." Lt. Col. J. R. KEAN, Medical Corps, U. S. Army.

Discussion by DR. DEWITT G. WILCOX, of Boston, Massachusetts, President of the American Institute of Homœopathy.

"Some Thoughts on the Standardization of Medical Education." DR. HAROLD C. ERNST, Professor of Bacteriology in Harvard University.

"What Instruction Ought Medical Colleges to Give in Pharmacology and Therapeutics?" DR. SAMUEL W. LAMBERT, Dean of the College of Physicians and Surgeons in Columbia University and Member of the Medical Council of the State of New York.

(a) "The Viewpoint of the State Examiner." DR. WALTER L. BIERRING. President of the Iowa Board and Professor of the Theory and Practice of Medicine and Clinical Medicine in the College of Medicine of Drake University, Des Moines, Iowa.

(b) "The Viewpoint of the Pharmacist." DR. BERNARD FANTUS, Professor of Pharmacology and Therapeutics of the College of Medicine in the University of Illinois, Chicago.

Discussion by Dr. Torald Sollmann, Professor of Pharmacology and Materia Medica in Western Reserve University School of Medicine, Cleveland. Dr. Willis A. Dewey, Professor of Materia Medica and Therapeutics, and Secretary of the Homœopathic Medical College in the University of Michigan, and Secretary of the Council of Medical Education of The American Institute of Homœopathy.

"Reciprocity." Dr. John Montgomery Baldy, President of the Pennsylvania Bureau of Medical Education and Licensure.

Discussion by Dr. George L. LeFevre, President of the Michigan Board, Dr. W. Scott Nay, Secretary of the Vermont Board, Dr. Thomas McDavitt, Secretary of the Minnesota Board, Dr. Herbert Old, Secretary of the Virginia Board.

Business Session:
Roll-call
Reports of Officers

The following is a digest of a paper read by Dr. Harold C. Ernst, Professor of Bacteriology in Harvard University, at the Federation of State Medical Boards of the United States.

It is one of a number of exceedingly interesting papers presented at that session, of which there will be others, with the discussions, published from time to time in the *Gazette*.

Some Thoughts on the Standardization of Medical Education.

It is unfortunate that the teaching of any important branch of medicine should be under the control of a single individual. It is also unfortunate that a young and ambitious worker should have no probable permanent reward held out to him in his own institution, —unfortunate for him and unfortunate for the institution. There are many instances of a worker demonstrating his right to professorial rank, and in which this rank should be conferred by the authorities of the place in which the worker has developed. When such rank has been conferred, the young professor should find himself among his colleagues, not his superiors. Differences in influence and effectiveness will adjust themselves.

That this position is the just one is seen in the administration of Harvard University, where it has been and is the custom to appoint as many professors—say of English—as occasion seems to require, and where there is never the slightest feeling that the rank of all these professors is not the same. That is the true university policy, and it is the policy upon which a medical school must be organized if that organization is to be of a broad and flexible character.

The training of a physician is primarily an educational, not a medical question, just as the training of an engineer is primarily an educational question, not an engineering question. This does not mean that the physician and the engineer must not recognize finally the points of view of medical practice and of engineering practice, respectively, but it does mean that, though the content be in one

case medical and in the other technical, the methods employed in training physician and engineer involve educational problems and educational skill.

Professor Paulsen, describing in his book on the German universities the increased importance of the medical profession, reports with some astonishment that the number of physicians has increased with great rapidity, so that now there is, in Germany, one doctor for every two thousand souls, and in the large cities, one for every one thousand.

The desire for standardization has extended already to an unfortunate extent in the almost universal demand that a candidate for registration to practice medicine shall be the possessor of the degree of Doctor of Medicine. This demand ignores the fact that this degree is really of university grade, that it is not a prerequisite to the practice of medicine in the older countries, and that it should not be in this. What the supporters of such a requirement really mean is that the candidate shall have a degree in medicine, which shall be a certificate of having had proper medical training; whether it is a doctorate or not is entirely aside from the question. This is a matter of academic standing pure and simple. Think of a law that would have prevented Sir Joseph Lister from practising in this country—if he had seen fit to come here—or even from applying for examination for a license to practice!

It is no longer invariably pursued as introductory to a trade, and it even happens that occasional students pursue its mysteries as a part of liberal education, or as introductory to a career of research. From any such point of view, which shows the true university spirit, the demand for a hospital year before conferring the medical degree would be a hardship. For the practice of medicine, the conditions are different, and it may well be that a year in a good hospital should be a prerequisite to a license to practice. How that can be accomplished in Massachusetts, for example, is a matter for wiser heads than mine to determine.

But the Faculty of Medicine to which I have the honor to belong has taken a definite position in the matter. As a result of action elsewhere in regard to a required hospital year before granting the Doctor's degree in medicine or a license to practice, a committee of that Faculty was appointed to consider the addition of such requirements in our own school. After the consideration of all the facts that could be gathered, this committee reported that such a step was not advisable, a strong determining factor in the formation of this opinion being the rule of some of the most important hospitals that their interns must be graduates in medicine and holders of that degree.

Discussion.

Dr. Abraham Jacobi, New York City: "The standard of medical education even now should be raised so that when we send our boys out to practice among the people they will know more than preventive medicine. The people want to know not only about preventive medicine, but the individual patient wants to know what that doctor has done in a similar case. He wants to know whether that or this doctor can cure him or not. This is just as important, from a practical and theoretical point of view, as to consume so much time in talking about preventive medicine which we do not put into practice."

Dr. N. P. Colwell, Chicago: "Dr. Ernst refers to the decrease in the number of medical colleges since 1904; that was at the time the Council on Medical Education had started. This decrease means a distinct advance, and not that medical education is being taught less well, but that it is given better. The diminution fron 166 down to approximately 100 medical schools in various States into one stronger and better equipped school. The decrease in the number of medical colleges has been largely brought about through the voluntary action of the colleges themselves.

As to prescription writing, there has been a positive effort made to have medical colleges write prescriptions for individual cases and to discontinue the method of using numbers, as has been done in the past."

Should the Federation of State Medical Boards of the United States Adopt a Uniform Minimum Curriculum for Medical Schools?

By Dr. John L. Heffron, Syracuse, N. Y.

The effect of such a curriculum upon the medical schools is equally bad. Conditions are not identical throughout the country. Aside from the universal need of well equipped physicians to care for the people, there are other and different conditions that are local and should be met. Medical schools differ in equipment and in opportunities for meeting the various demands for medical service. The enforcement of an exacting, all-time-consuming, standardized curriculum must have the effect of reducing all schools to the same dead level and of paralyzing individuality in schools. This is the evil result entailed upon us by the praiseworthy effort to effect a reform against medical schools the majority of which were private joint stock corporations at the time when these efforts were begun. In our country it is probable that no better method could have been employed than the enactment in every State of a medical practice act that should protect the people from unworthy medical men and from unworthy methods of medical education.

The conclusion therefore seems inevitable that the imposition by the State or by any other authority whatever of a standardized, rigid, time-consuming curriculum can but work evil to medical schools and to medical students.

We should have a simple, straightforward statement of what are considered fundamental subjects and an outline for each, giving what are recognized as the essential principles to be mastered, and a standard by which to measure knowledge and power. With such a minimum curriculum, each college recognized by a State as worthy could offer electives in various subjects so that every student could pursue a more extended course in the particular subject which commands his greater interest. In such a way the university idea of education could be carried out.

Should the Federation of State Medical Boards of the United States promulgate such a curriculum, and have they the power to administer it? The formulation of any curriculum should be the work of men trained in the science of education. It is purely a pedagogical question. The very terms of the law by which members of the medical examining boards in most of the States are selected makes it impossible for them to be teachers. The purpose of such a law is self-evident. It was thus laid down to prevent the imputation of favoritism to a particular school on the part of an examiner who should be a member of the faculty of such a school.

It is my opinion, therefore, that the cause of medical education would be forwarded if this Federation should secure the coöperation of specialists in universities and in medical education and, with their aid, formulate a uniform minimum curriculum for medical schools to present for adoption to the various States of the Union, and that this great Federation should endeavor to secure such an administration as shall really test, by practical examinations, the knowledge of all applicants for the license to practice medicine.

Discussion.

Dr. John K. Scudder, Cincinnati, Ohio:—As this is a voluntary organization I doubt the advisability of your attempting to adopt a uniform curriculum for medical schools. The enforcement would have to lie with the individual boards, and even then within powers written into the various State medical laws.

Of one thing I am firmly convinced, that if this curriculum were hard and fast and not flexible, it would defeat the very object desired, the rational education of the student, and would prove a serious detriment to the already burdened college.

The objections now to the standards laid down by the Council on Medical Education, are that they are not flexible, and frequently more destructive than constructive.

Dr. Heffron has delicately touched upon these points, and mentioned the point of hours.

The Ohio State Medical Board, on which I had the honor of serving, specified a minimum curriculum of 3600 hours. New York specifies 3600 hours, The Association of American Medical Colleges, 4000, but Pennsylvania specifies in the law itself 4480 hours, and now comes California with a more absurd standard of 4800. Scarcely a score of colleges even profess to have that amount of teaching, and I seriously doubt the advisability of 4480 hours.

It is alleged that Pennsylvania classes several colleges in its list "A," which do not by their catalogues schedule any such number of class hours.

When I attended the Cincinnati University about twenty-five years ago, we had several courses leading to different degrees, and the flexibility of the course, as I remember it, was approximately as follows: Freshman year, four major subjects specified, no options. Sophomore year, three majors, one elective. Junior year, two majors, two elective. Senior year, a little over half elective along certain lines.

If a flexible medical curriculum in some such manner as this could be adopted, I should approve the plan.

I have more sympathy with the college which successfully teaches medicine, than with the one posing for maximum hours.

Flexibility is the keynote of my argument and continuously holding in mind the teaching of medical students to think and not make automatons of them, which is unfortunately the trend of modern education.

Dr. J. M. Baldy, Philadelphia:—Pennsylvania has no idea of adopting hard and fast rules in the administration of the law. The Bureau unanimously agrees that flexibility is the proper and only thing, and it is the only way any law can be intelligently enforced.

BOOK REVIEWS.

Elementary Dermatology by Ralph Bernstein, Philadelphia, Pa., Clinical Professor Dermatology, Hahnemann Medical College, Philadelphia; Clinical Chief, Skin Section, Hahnemann Hospital. Boericke and Runyon.

This is styled by the author "An Epitome of Dermatology" and it is an apt title. As an epitome the book is excellent. It is concise and practical, both for the student and practitioner, as by its aid one can readily look up the salient points in diagnosis and treatment of the common dermatologic affections.

The chapters on "subjective," "durational," "lesional" and "regional" dermatology are to be especially recommended to the student. The chapter on "Dermatologic Remedies Described" is of value to any practitioner.

One is led to wish in looking over this book that it may be only the forerunner of a more extensive work by this talented author.

Diagnostic Methods—A guide for history taking, making of routine physical examinations and the usual laboratory tests necessary for students in Clinical Pathology, Hospital Internes, and Practicing Physicians. By Herbert Thomas Brooks, A.B., M.D., Professor of Pathology, University of Tennessee, College of Medicine, Memphis, Tennessee. Price one dollar.

In this little book of only 82 pages is contained a wealth of practical methods of getting at the cause in the patient's illness. There are twelve chapters each dealing with subjects such as Sputum, Urine, Blood, Tubercular Diagnosis, the Wasserman Reaction and the like, in a concise and usable way. Such a set of tests in convenient form should be a part of every physician's working library, and we have seen none better than that given by Dr. Brooks.

Diseases of the Kidneys and Nervous System. By A. L. Blackwood, B.S., M.D., Professor of Clinical Medicine in the Hahnemann Medical College, Chicago. Author of "A Manual of Materia Medica, Therapeutics and Pharmacology," "Diseases of the Heart," "Diseases of the Lungs," "Diseases of the Liver, Pancreas and Ductless Glands," "The Food Tract, its Ailments and Diseases of the Peritoneum" and "Contagious and Constitutional Diseases." 346 pages. Cloth, $1.50. Postage, 9 cents. Philadelphia. Boericke & Tafel, 1913.

This little volume is the sixth and closing part of the author's work on "Internal Medicine." Like the five preceding volumes it is an excellent compendium of concise and tried facts of experience gleaned from hospital, clinic and private practice. It is intended rather for the student and general practitioner than for the specialist and contains many tabular comparisons of symptoms which are most convenient for ready reference. The treatment of each disease is as complete as is possible to put into so small a compass and is suggestive if not detailed. The drug treatment is more complete—There is no nihilism in doings here. The type and binding are good.

REVIEWS OF MEDICAL JOURNALS.

Journal of Ophthalmology and Oto-Laryngology. January, 1914.

Affections of the Eyes Resulting from Sinus Involvements. By Robert W. Miller, M.D., Los Angeles.

"Some of the grosser and more palpable ocular and orbital disturbances secondary to diseases of the nares and accessory sinuses have long been recognized. Developments within the past few years, however, making possible and fairly certain the recognition of various non-suppurative diseases of the accessory sinuses and of "closed" non-draining suppurative processes and their relations to ocular disturbances mark a very distinct advance in this field of work. . . . . .

Ocular neuralgia independently of a localized pathological process, must at least be regarded as of very rare occurrence. Well directed search will usually reveal the seat of the trouble and proper therapy will afford relief. The seat of the pain is largely determined by the sinus or sinuses involved. It is well-known, however, that in a very large proportion of cases more than one sinus on one side is involved, and that by a secondary infection of one from the other a pansinusitis is not very rare. In a large proportion of cases of sinusitis, the affection is bilateral, although unilateral cases undoubtedly occur. . . . . .

Certain functional disturbances of the eye are of very frequent occurrence in connection with sinus involvements, especially those of the maxillary, frontal, and ethmoidal. They are asthenopia, or inability to use the eyes for near work, ciliary spasm with pain from convergence, blepharospasm, photophobia, profuse lachrymation, muscular imbalance due to spasm, over action or diminished power in one or more of the extrinsic muscles. Ptoses of varying degree is occasionally noted. Hence, before venturing a

prognosis or deciding upon any operative procedure for its correction, an investigation of the ethmoid area in particular should be made. Mydriasis is occasionally noted; also myosis, perhaps still less frequently. In order to exemplify still further the intimate relations existing between the eyes and the contiguous parts, we note that contraction of the visual fields and even temporary blindness have followed operations upon the middle turbinate bodies and the employment of the galvano-cautery or chemical cauterants within the nares. . . . . .

Summary.

Sinus involvements are found to explain and clarify the etiology and pathology of many ocular and orbital diseases.

In our examinations special care and repeated efforts are necessary in order to discover the source of the trouble in non-suppurative and closed suppurative cases of sinus involvement.

No part of the eye or its appendages is exempt from secondary invasion from sinus disease.

Such cases frequently occur in the epidemic form.

Early recognition of the exact nature of such cases is highly important in pointing the way to correct therapy and the conservation of the health and the preservation of the eyes of those who apply to us for relief.

D. W. W.

The Hahnemannian Monthly. January, 1914.

1. *Jejunostomy.* W. B. Van Lennep, A.M., M.D., F.A.C.S.

This operation promises good results in those cases in which a gastro-enterostomy is sometimes unsatisfactory.

2. *Report of a Case of Papillary Cystadenoma of the Ovary Complicating Pregnancy.* F. N. Ward, M.D.

The author advocates early surgical interference.

3. *Importance of Mental and Nervous Symptoms in Selecting the Remedy. Illustrated in Treatment of Typical Typhoid Cases.* W. J. Hawkes, M.D.
4. *Address of the President of the Homœopathic Medical Society of the State of Pennsylvania.* H. S. Nicholson, M.D.
5. *Increased Resistance an Important Factor in Prevention and Cure of Tuberculosis.* T. H. A. Stites, M.D.

[Reviewer's Note]. We would suggest that increased resistance is *the* important factor in the prevention and cure of all infectious diseases.

6. *Pollution of Railroad Tracks a Menace to Public Health.* A. C. Clarke, M.D.
7. *Conditions of the Uterus Suggesting Minor Surgical Operations.* G. W. Hartman, M.D.
8. *Uterine Deflexures a Barrier to Pregnancy.* J. R. Swartz, M.D.

The Medical Century. January, 1914.

1. *Enteric (Typhoid.)* E. Petrie Hoyle, M.D., London.

With the belief that students can grasp therapeutics and pharmacology better when drug actions are displayed in close and concise comparison, Hoyle tabulates thirty-one remedies which have been used in typhoid fever. Most of the keynote symptoms are taken from the works of Nash and Dewey.

[Reviewer's Note.] The tabulation may be subjected to warranted criticism in that it includes some clinical symptoms in this "display of *drug action.*" In such a tabulation of *drug action* it would seem desirable that the gross, indubitably pathologic effects of the drug upon the body tissues should also be included for the sake of completeness (totality of symptoms) and ease of comprehension.

2. *Poliomyelitis.* J. P. Cobb, M.D., Chicago.
3. *The Cost of the Defective and How Are We to Meet It?* S. C. Runnels, M.D., Little Rock, Ark.

"The prison must be largely replaced by the hospital." Education must be graded to fit the varying degrees of defectives. Special attention must be paid to the selection of occupations which fit the capabilities of the defectives. In hopeless cases there must be a law providing that it shall be made physically impossible for them to procreate. S. B. H.

The North American Journal of Homœopathy. January, 1914.

1. *Premature Old Age.* E. D. Rudderow, M.D.

Mal-adaptation of the individual to civilization and the necessities of life is given as the cause of cardiovascular and renal degeneration. Diet, and rest for the arteries and kidneys are the essentials of treatment. A daily sweat bath is advocated.

2. *Weak Points in the Moral Tone of the Medical Profession.* A. von der Luke, M.D.

A sermon from a radical moralist on: (1) Drinking habits of medical men. (2) Inveterate cigarette smoking. (3) A physician offering his services for less to one who has another physician. (4) Useless surgical operations.

The following quotation from Mill embodies the essence of the argument: "My liberty ends when it begins to involve the possibility of ruin to my neighbor."

3. *The Diagnosis and Treatment of Mammary Cysts and Their Differentiation from Other Breast Tumors.* L. L. Danforth, M.D.

An aspirating needle plunged into the centre of doubtful hard tumors may relieve the patient of the necessity of a radical operation.

4. *Streptococcic Throat Disease.* H. J. Ball, M.D.

An epidemic, having some of the symptoms of mumps, quinsy, tonsillitis and diphtheria, caused by infected milk. "Septic sore throat" is considered synonymous.

[Reviewer's Note.] The treatment as outlined by Ball is horribly symptomatic. "Iodine should be applied to the mucous membrane, and iodine and petorgen to the skin." What is petorgen? and *why?* "For the fever, aconite, belladonna, ferrum phosphate and iodide of mercury . . . ." *Why* for the fever alone? "Phenacetine relieves the general aching and local pains." So would morphine—each would lower systemic resistance. "Urotropin grains V should be given every six or eight hours until bladder irritation is produced." *Why?* Urotropin or hexamethylenetetramine in itself has no utilizable antiseptic action. Its decomposition product, formaldehyde, is formed only in an acid medium and then in direct proportion with the degree of hydrogen ion concentration. Gastric juice and the urine are the two body fluids which have sufficient degree of acidity to allow the liberation of formaldehyde in such efficient dilution as will inhibit the growth of bacteria. Since some of the chemical tests for formaldehyde give very similar reactions with urotropin, some investigators have erroneously concluded that formaldehyde is excreted in the nasal mucus, cerebrospinal fluid, etc. This is the "rational" basis for the widespread and futile employment of the drug in meningitis, rhinitis, anterior poliomyelitis and other infections.

Moreover, if vesical antisepsis is the goal, it may be attained in most cases by proper dosage, sometimes in conjunction with acid sodium phosphate, long before gross "bladder irritation is produced."

Finally, any drug given in accordance with the principles of a *therapia sterilisans magna* must be free from defective properties which allow its action in acid media only.

5. *The Vaccine Treatment of Typhoid and Pneumonia.* E. P. Swift, M.D.

Swift reports one case of typhoid and four of lobar pneumonia in which vaccines were used. From the results he is *convinced* that the effect of the bacterial vaccine is to markedly increase the activities of the protective organism of the body without inducing an injurious or distressing reaction."

[Reviewer's Note.] Enthusiasm and optimism in regard to new therapeutic measures, are, in our opinion, further removed from safety and more productive of misleading results or actual harm, than is agnosticism—even pessimism.

6. *A Sketch of Cobaltum.* R. Del Mas, Ph.D., M.D.
7. *The Little Things.* B. Clausen, M.D.

Under this avowedly vague topic, Clausen briefly calls to mind various important modalities and "characteristics" which are helpful in selecting the indicated remedy.

8. *The Reflexes in Diagnosis.* E. S. Smith, M.D.

A fragmentary review of spondylotherapy giving the results of concussion of different vertebræ.

[Reviewer's Note.] We would like more definite knowledge of *how* to determine an enlargement of the gall bladder caused (?) by concussion of the ninth dorsal spine; also how to explain contraction of the liver by concussion of the third lumbar vertebra. Since the spinal cord terminates at the level of the second lumbar, such a phenomenon is hardly explicable on the assumption that the concussion stimulates reflex centres in the cord.

9. *Three Freakish Cases.* Charles E. Lane, M.D.
   1. Face Presentation. R. M. P.
   2. Death of one of twin fœti at three months and normal birth of the second at eight months.
   3. Podalic version of a "Transverse position."

S. B. H.

The British Homœopathic Journal. January, 1914.

1. *Gall-Stones.* T. M. Neatby, M.A., M.D.

In this extensive post-graduate lecture, to be concluded in the February number, Neatby thoroughly considers the etiology and pathology of cholelithiasis. A primary pure cholesterin "stone" may form without preexisting infection of the gall-bladder, but the more commonly encountered bilirubin calcium calculi are sequelæ of cholecystitis. The infection is probably "ascending" in most cases, but the possibility of a hæmic route (as in appendicitis) must be kept in mind.

In reviewing the literature, Neatby finds many high authorities who maintain that gall-stones may give no recognizable evidence of their presence in the gall-bladder. Moynihan calls this opinion a "venerable fallacy," but in analyzing Moynihan's "inaugural" symptoms Neatby concludes that symptoms may not always accompany cholelithiasis; *per contra,* such symptoms are usually referable to a coexisting cholecystitis.

2. *Notes on Puerperal Fever.* A. G. Sandberg, M.D.

A brief review of some of the therapeutic measures used in this infection. The author advocates frequent intra-uterine irrigation with hot 1-4000 solution of perchloride of mercury after curettage.

In the discussion, Dr. Neatby condemns the use of a mercurial douche because of the very patent danger of retention, absorption and poisoning.

[Reviewer's Note.] We infer from Sandberg's closing remarks that Neatby once did suggest the use of a perchloride solution fifteen years ago. Our knowledge of poisonous antiseptics has very materially increased since that time, and we are glad to note that Dr. Neatby, at least, has changed his opinion regarding their use.

3. *Salicin and Its Compounds.* P. Proctor, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A.

"As regards acute rheumatism . . . we have little or no homœopathic indication and (the use of salicylic acid) is empirical."

4. *Precis of a Demonstration on the Development of the Brain and Eye.* A. Wilson, M.D.

S. B. H.

The Homœopathic World. January, 1914.

1. *Homœopathy in Russia.* N. M. Serkoff, M.D., Moscow.

In this historical review, Dr. Serkoff, who is now traveling in this country, relates the facts concerning the establishment and growth of homœopathy in Russia, and recognizes as the beginning of a fresh "period" in its development, the Pan-Russian Homœopathic Congress held in St. Petersburg, October, 1913.

2. *Cases from Practice.* A. McCandlish, M.D.

Phosphorus in cataract and optic nerve atrophy.
Lycopodium in tonsillitis.
Phosphorus in diarrhœa.
Secale in enlargement of the prostate.

3. *A Case of Hypersensitiveness to Cows' Milk.* D. Borland, M.D.

A breast-fed infant of five weeks, was given one feeding of diluted cows' milk with no ill effects. When five months old another feeding of the same mixture caused violent vomiting and diarrhœa. Further isolated attempts to feed the child on cows' milk produced the same effects, while goats' milk was productive of no symptoms.

Borland draws conclusions relative to the "single dose" and the duration of its action.

4. *Veterinary Notes.* J. S. Hurndall, M.R.C.V.S.

S. B. H.

Journal Belge d'Homœopathie. September-October, 1913.

1. *Study of "Dechloruration." Parallel Action of (a) The Waters of Evian, Source Cachat. (b) The Plasma de Quinton. (c) Dynamized Solutions of Natrum Muriaticum. Dangers of Extreme Dechloruration.* Dr. B. S. Arnulphy, Paris.

The three saline substances mentioned in the title are said to have an extraordinary power in causing a rapid and marked increase in the amount of chlorine excreted in the urine in cases of "chlorine retention." They are supposed to act by re-establishing equilibrium. Of the three, natrum mur. is alleged to produce the most remarkable effects upon the kidneys, probably by virtue of its "dynamic action in setting free intra-atomic energy from (the grosser) molecular cohesions."

Arnulphy fosters the belief that demineralization of the body tissues is a potent factor which predisposes to cancer. He refers to the work of Dr. Gaube, who has asserted the urinary findings characteristic of the precancerous stage to be as follows:

In order of appearance	Excess of oxalic acid.	
	Excess of chlorin.	
	Diminution of	Urea.
		Phosphoric acid.
		Lime salts.

"Qui dit dogme, dit intolerance;" and the author strongly condemns the attitude of "l'Ecole" in its widespread recommendation of the rigid salt-free diet.

[Reviewer's Note.] The parallelism of the action of the three substances is very poorly outlined, and unfortunately only vague and sometimes extravagant generalizing statements are made concerning their action. A large part of the article is taken up with an emphatic denunciation of "l'Ecole" and its therapeutic measures. Indeed, the faithfulness with which Arnulphy keeps returning to this theme would seem to render it a proper subject for a separate article. The fervidly philippic utterances with their wealth of analogy and felicity of phrase are, next to being heard, perhaps best illustrated in these quotations:

"Non, Josués impuissauts de l'Ecole, vous n'arrêterez pas la marche du soleil de la vérité.

"Et lorsqu'il aura dissipé de ses rayons bienfaisants la brume épaisse que vous avez si longtemps fait peser sur le monde, lorsqu'il aura inondé la conscience publique, enfin sortie de sa longue léthargie, tout l'echafandage de vos enseignements néfastes s'écroulera et le sombre cauchemar sera dissipé à jamais, noyé, englouti dans l'aurore radieuse des temps nouveaux, vers lesquels nous marchous à grands pas."

Personally, the reviewer sympathizes with Arnulphy's scathing criticism of the hide-bound attitude of the politically dominant school toward therapeutics. As an advocate, however, of methods which should ultimately tend toward medical unity on a scientific basis, the reviewer feels it incumbent upon him to set forth a few philosophical considerations which must be kept in mind when one is striving toward such an end.

We must be careful not to dogmatize our therapeutic principle of symptomsimilarity, for dogma means essentially intolerance, and intolerance is the vice of the narrow man.

We must realize that advance can never come from ignoring or minimizing real differences of conviction. Those who work for peace, and not for a transient lull in hostilities, must not be over-eager to clutch a fruit the maturation of which cannot be rudely accelerated.

We may fight for our legitimate right to have our own judgment and opinions; we should realize that others are possessed of that same right; hence we should not, in a belligerent spirit, try to force our opinions upon them. The holding of opinions possesses integrity or justification, either intellectual or moral, only so far as the holding is done by seekers after truth. The differences of honest men are not irreconcilable, for each in all probability, retains a measure of truth in his keeping.

In medicine or in other fields of learning, whether the fray rages in the laboratory or in the forum, neither side will ever annihilate the other, for the conflict is not between truth and falsehood. Neither ought to triumph completely, because neither contestant holds the whole truth in his hands. Let us not be such as fight more to destroy the truth to which they are opposed, than to establish the truth which they hold; such as profess to believe that compromise and surrender are exemplified in every recognition of the other side of the truth. Such men are limited by the narrowness of their premises in assuming an order in the universe which can be grasped comfortably by the human mind.

Finally, let us remember and be guided by the fact that, ultimately, opposing tendencies will be resolved, not by compromise, but by *comprehension.*

S. B. H.

Journal Belge d'Homœopathie. November-December, 1913.

1. *The Use of Anthracinum in the Two Forms of Anthrax.* Jules Carpentier.

Three cases of internal and one of external anthrax are reported as being cured with almost magical celerity by the use of anthracinum 6.

2. *The Medico-Botanical History of Hieracium Pilosella.* Dr. C. Castellan, Toulon.
3. *A Case of Anal Fissure Complicated with Cardiac Symptoms.* Dr. Eng. De Keghel.
4. *A Case of Epiphora Cured by Guarea* IX *and Calcarea Carbonica* 6. Dr. A. Hoorens.

S. B. H.

OBITUARY.

Albert H. Tompkins, M.D.

Dr. Albert H. Tompkins died at the Massachusetts Homœopathic Hospital, on February 14, from cancer.

Dr. Tompkins was born at Little Compton, Rhode Island, in 1844, the son of Henry Martin Tompkins and Anna (Gray) Tompkins.

He began his career as a bookkeeper in Boston. Later he abandoned business and entered the Boston University School of Medicine, from which he graduated in 1875, in the second class that left the institution, in company with Dr. Samuel H. Calderwood and the late Dr. Alonzo Kennedy.

Dr. Tompkins was connected with various medical societies of the State, and always had a vital interest in everything connected with the philosophy and practice of Homœopathy.

He was for many years an active member of the old Boenninghausen Club of Boston, where he will long be remembered as a fluent essayist and a most interesting companion.

He was well-known generally as a writer on medical topics, contributing frequently to the various magazines. He was in demand as a speaker at conventions, and always had something interesting to say.

Aside from his medical work, which always took precedence, he was interested in matters of local welfare, in church and state.

Dr. Tompkins was first married to Miss Frances M. Cheever of Boston, who died in 1886. Later he married Mrs. Louise A. Chipman, who survives him, together with a son by the first marriage, Ernest A. Tompkins, of Pittsfield.

The following tribute to Dr. Tompkins appeared in a local newspaper and shows the esteem in which he was held by his neighbors:—

"The death of Dr. Albert H. Tompkins removes from this community a very rare and beautiful type of man. Modest and unassuming, he possessed an uncommonly active and keen intelligence, and an admirable power of expression, both in speech and writing. He was the incarnation of vigorous and sensitive conscience; the sound habits and convictions of his lifetime, going back to their early roots in the strong soil of the anti-slavery earnestness of a true-hearted family, lifted him quite out of the reach of every vulgar kind of temptation. Full of courage and devotion, he would have gone to his death for his principles, as cheerfully as any martyr who ever lived. Perhaps no man here gave so much of his time and means and enthusiasm for the cause of temperance. He held the liquor evil to be the most colossal of all the curses that undermine human society, and could hardly be patient with the stupidity and indifference of people who look on its continuance with complacency. The end and aim of his life was to do good. No physician was more consecrated to his professional work. At the same time, he remained always the loyal friend and genial companion. His interests and sympathies were as wide as the world. None the less, he loved flowers and birds and music and all beautiful things. He took a good citizen's pleasure in making his little area of ground a 'beauty spot' upon the street. It was a brave, cheerful, useful, friendly, happy life up to the very end. No troubles or sorrows that had come to him shook his growing faith in the Eternal Goodness, and he looked at last upon the mystery of death as to 'a covered way which opens into life.' "

Charles F. Dole.

Anna Temple Lovering, M.D.

Dr. Anna T. Lovering died in Boston, at the Evans Memorial, on February 22, at the age of forty-nine years.

She was born in Nantucket on August 12, 1864, the daughter of Rev. Joseph F. and Elizabeth C. (Defriez) Lovering. She graduated from Boston University School of Medicine in the class of 1889, and for the past ten years, up to the present academic year, has been librarian of the School, and she filled the position admirably. Many a graduate will remember with gratitude her efficient and interested help in the selection of books bearing upon their work, and her friendly advice. She took a deep interest in the students and in their success after graduation, and through her efforts the School library was brought to a high degree of usefulness. In spite of years of ill health and of suffering bravely and uncomplainingly borne, she carried her chosen work with enthusiasm and real devotion. She had decided literary ability and was frequently called upon to edit and assist in the preparation of medical papers. A little work of hers called "Hints in Domestic Practice," giving the simple homœopathic remedies in ordinary ailments, has had a large sale and is of undoubted value in its particular field.

Dr. Lovering was also connected editorially with the *Gazette*, during 1902 as assistant to Dr. John L. Coffin, and during 1903 and a part of 1904 as editor. She is survived by her father and an invalid brother.

REORGANIZATION OF THE STAFF OF THE MASSACHUSETTS HOMŒOPATHIC HOSPITAL.

The plan as outlined by the trustees is as follows:—There shall be a medical and surgical department. In these are included all the specialties.

The medical department comprises what have formerly been known as the medical, nervous, chest, skin, and children's sections, diseases of the mind, pharmaceutics and electro-therapeutics.

The medical staff shall consist of a senior physician, two physicians, visiting physicians, assistant visiting physicians and assistant physicians to the Out-Patient Department.

There shall be a medical executive committee to consist of the two physicians and the superintendent. This committee shall have general direction of the medical services in all departments of the hospital, and shall make all nominations to the trustees for appointments upon the medical staff. The superintendent shall be the secretary of this committee.

The senior physician shall designate to the Medical Executive Committee at the beginning of each year the work he desires to do during the year.

In case of prolonged absence of one of the medical executive committee, other than the superintendent, the vacancy shall be filled by the visiting physician on duty.

Visiting physicians shall have such service as the medical executive committee determines.

Assistant visiting physicians shall be on duty in the hospital and in the Out-Patient Department, as may be determined by the medical executive committee.

The appointments on the medical service are as follows:—

Consultants:—Dr. Walter Wesselhoeft, Dr. John P. Sutherland, Dr. Charles H. Thomas.

Senior Physician:—Dr. Frederick B. Percy.

Physicians:—Dr. Frederick P. Batchelder, Dr. Edward E. Allen.

Visiting Physicians:—Dr. Nelson M. Wood, Dr. Edward S. Calderwood

Assistant visiting physicians and appointees to the various specialties included in the medical department.

On the surgical side, the changes affect the departments of surgery, obstetrics, eye, ear, nose and throat, orthopædics, the rectal, dental, woman's and genito-urinary departments.

Appointments on the surgical service are as follows:—

Consultant:—Dr. James B. Bell.

Senior Surgeons:—Dr. Horace Packard, Dr. Winfield Smith.

Surgeons:—Dr. J. Emmons Briggs, Dr. William F. Wesselhoeft.

Visiting Surgeons:—Dr. Thomas E. Chandler, Dr. Charles T. Howard, Dr. Clarence Crane (pro tem), Dr. Ralph C. Wiggin (pro tem).

And as assistant visiting surgeons and appointees in the various specialties. The trustees have created a surgical executive committee consisting of the surgeons, Dr. Briggs and Dr. Wesselhoeft and the superintendent, Dr. Mann, who have general charge of the surgical services in all departments of the hospital and make all nominations to the trustees for appointments upon the surgical staff.

In matters pertaining to the obstetrical, orthopædic, nose and throat, eye and ear department, a representative of that service becomes a member of this committee.

The senior surgeons designate to the surgical executive committee at the beginning of each year the work they desire to do during the year.

Dr. Briggs and Dr. Wesselhoeft each have a continuous service throughout the year, receiving alternate cases.

Visiting surgeons have regular services of six months and are assisted by assistant visiting surgeons.

General Executive Committee.

There shall be a General Executive Committee, consisting of the two physicians of the medical executive committee, the two surgeons of the surgical executive committee and the superintendent. The superintendent shall act as secretary of the board.

This committee shall have general supervision of all work relating to the treatment of patients.

The general executive committee shall prescribe, subject to the confirmation of the trustees, house rules for the management of the various medical and surgical departments.

No person shall be eligible to active service in any department of the hospital after attaining the age of sixty years, and upon the retirement of the present senior physician and senior surgeons, those positions shall be abolished.

REPORT OF THE SECRETARY AND TREASURER OF THE FINANCE COMMITTEE OF BOSTON UNIVERSITY SCHOOL OF MEDICINE.

At a meeting of the Faculty of Boston University School of Medicine, held November 29, 1912, at the office of Dean Sutherland, the great necessity for raising funds was discussed, and the following physicians, to be known as the Finance Committee, were appointed: George R. Southwick, H. P. Bellows, N. Emmons Paine, John P. Sutherland and J. Emmons Briggs.

The first meeting of this committee was held on the evening of December 10, 1912, at the office of Dr. Southwick. Dr. Southwick was elected chairman; Dr. Briggs, secretary and treasurer.

At this meeting, ways and means were discussed and it was voted to recommend to the presidents of the various homœopathic medical societies the appointment of two members to serve upon the Finance Committee, in conjunction with those appointed by the Faculty.

The president of the Massachusetts Surgical and Gynæcological Society appointed Drs. N. M. Wood and D. W. Wells; the Boston Homœopathic Medical Society, Drs. E. B. Cahill and N. R. Perkins; the Massachusetts Homœopathic Medical Society, Drs. Baker-Flint and Charles T. Howard, the Alumni Association, Drs. Lucy Appleton, George E. May, F. P. Batchelder, John H. Bennett, Charles Leeds and W. O. Mann. Dr. Horace Packard was made a member of the Finance Committee on December 10, 1912. Dr. Leeds resigned and Dr. Watters was appointed to fill the vacancy.

At the meeting of February 3, it was voted that Dr. Rice and Dr. Rockwell be added. The Finance Committee, as now constituted, numbers twenty members.

To date, thirty-six meetings have been held, fourteen at the residence of the chairman, four at the office of Dr. C. T. Howard, five at the residence of Dr. Appleton, two at the Boston Art Club and eleven at the office of the secretary and treasurer.

The object of the Finance Committee, as set forth by the Faculty, was to secure financial assistance for Boston University School of Medicine.

With this object in mind, the committee has bent every effort toward securing a permanent endowment fund. It will be remembered that in the years 1910 and 1911, an endowment fund was started and, largely through the efforts of Dr. W. H. Watters, $22,195.04, was secured. At that time, or shortly after, the trustees of Boston University voted that if the Medical School would raise $50,000, they would appropriate $50,000 toward a permanent endowment fund. In order to secure this offer of the Trustees, it became necessary for the present Finance Committee to raise $27,804.96. The committee realized that although the sum demanded was relatively small, it must be raised largely from the ranks of those who had subscribed during the compaign of 1910 and 1911.

The first problem which faced the committee was the raising of a substantial sum to carry on this work. After the plans of the campaign were formulated, a meeting of the full Faculty was held at Hotel Victoria, March 20, 1913, and the Faculty subscribed $1,000, all of which has been paid except $80. One pledge of $30 and another of $50 are still unpaid. This sum proved insufficient to carry on the work; therefore, several members of the Finance Committee contributed $1,030 to these expenses instead of to the endowment fund.

This financing became a necessity because it was the unanimous opinion that no money contributed to the endowment fund should be diverted to any other use.

This policy has been carried out to the letter, and every subscriber may be assured that one hundred per cent of his subscription has been applied to the endowment fund.

To the Faculty it will be of interest to recapitulate in some detail the actual work done by this committee:

Thirty-six meetings have been held.

Thirty-two different circulars have been prepared for distribution.

Twenty-eight thousand eight hundred and sixty-two circular letters have been mailed.

Of these, we have printed sixteen thousand eight hundred and fifty on our multigraph.

Three thousand eight hundred and fifty individual, typewritten or handwritten letters, bills and receipts have been sent out.

The committee has studied the methods employed in raising money for various universities and benevolent institutions and has made use of those applicable to its needs.

A publicity agent employed by the Faculty was instrumental in securing space in the leading newspapers for many articles. The newspapers publishing these were as follows:

Boston Transcript	14 articles
Boston Globe	13 articles
Boston Post	13 articles
Boston Herald	9 articles
Boston Journal	9 articles
Boston American	6 articles
Boston Traveller	5 articles
Boston Record and Advertiser	3 articles
New York Times	3 articles
New York Sun	1 article
New York Herald	1 article
Worcester Telegram	1 article
Providence Journal	1 article
Springfield Republican	1 article
York, Pa., Despatch	1 article
London Daily Telegraph	1 article

Testimonial letters of the school have been secured from prominent citizens. Among them:

Ex-President William H. Taft; Senator W. Murray Crane; Ex-Governor John D. Long; Ex-Governor John L. Bates; Senator John W. Weeks; Senator Joseph Walker; Edwin B. Harvey, Secretary, Board of Registration in Medicine; Bishop John W. Hamilton; Rev. George L. Perin; Rev. Paul Revere Frothingham; Rev. Frederick B. Allen; Rev. Stephen H. Roblin; Rev. George Reed; Prof. Edward Caldwell Moore, of Harvard; Prof. George F. Swain, of Harvard, (Chairman, Boston Transit Commission); Prof. George H. Palmer; Silas Peirce, president, Cosmopolitan Trust Co.; D. G. Wing, president, First National Bank; Col. Charles R. Codman; Arthur F. Estabrook; Henry B. Day; M. F. Dickinson, and many others.

At the meeting of the Massachusetts Homœopathic Medical Society, held April 9, 1913, a subscription was made. From those physicians present, nearly $5,000 was pledged.

The Fair which was held at the Copley-Plaza in November, last, was first considered by the Finance Committee at a meeting held April 14, 1913, and on May 19, a Fair Committee, composed of Dr. George B. Rice, Miss Cummings, Mrs. Whitman, Dr. Baker-Flint, Dr. Appleton, Dr. Gary, was appointed. Of the great success of this enterprise, we shall hear through the chairman of the Fair Committee, Dr. George B. Rice, and Dr. H. L. Babcock, its treasurer. To these gentlemen and all the members of the committee, great credit is due. No mention is made in the financial statements of the Finance Committee of the proceeds of this fair, as these funds have not as yet come into the hands of the writer.

The Finance Committee has under consideration the formation of a Ladies' Aid Association, its object being to raise funds for Boston University School of Medicine.

Thus far, the report has outlined the scope of work of the Finance Committee. It will doubtless interest you to know what has been accomplished.

This has been an educational campaign, as it has given to each graduate of our college much information concerning the present status of Boston University School of Medicine, information which many graduates felt had been too long withheld.

The financial statement will show that the committee has completed the task of raising the required $50,000. We have at the present time 823 living alumni whose addresses are known. During the year 1913, two hundred and ten have subscribed to the endowment fund. Many have succeeded in interesting their patients and friends, so that substantial subscriptions have been procured. Of the greatest importance is the esprit de corps of the graduates of Boston University School of Medicine. Probably there are few medical schools in which a call for financial aid would be heeded by a larger percentage of its graduates. It is gratifying to receive scores of letters testifying to the deep regard of the alumni for their alma mater. Some of our graduates have given who could ill afford it. Others who could have contributed, have thus far withheld their support.

At a meeting of the Finance Committee, held October 6, 1913, it was voted that the Treasurer represent to the Faculty the desirability of continuing the work of the Finance Committee and ask for an appropriation to defray expenses.

Before deciding this matter, let us consider what has been accomplished with the funds expended last year.

An educational campaign has been carried on, both among the alumni and the public in general. Many have heard for the first time of the existence of Boston University School of Medicine. $27,804.96 has been secured for the endowment fund, and, in addition, $1,950.50 for the expenses of the Finance Committee. A great fair has been held, and 32,712 circulars and letters have been distributed.

Boston University School of Medicine is now before the public as never before. Contributions are coming in almost daily, and it would seem that a Finance Committee might well become a permanent standing committee of the Faculty.

If it is the judgment of the Faculty that this be done, the next question of vital importance is the appropriation of funds to carry on the work.

It is the opinion of the Finance Committee that $1,500 would be required for the year 1914, if the work is to go on uninterruptedly. This estimate is figured as follows:

INVENTORY, JANUARY 1, 1914.

Stationery, valued at	$20
Stamped envelopes (2,000)	40
Office appliances, including multigraph, stamp affixer, envelope sealer and addressing machine (after deducting 10 per cent for depreciation)	248
Mailing lists	30
Stock on hand	$338
Total expenses of Finance Committee, 1913	$1,937.64
Deduct inventory account	338.00
Net cost of 1913 campaign	$1,599.64

During the year 1913, the actual expenses were $1,599.64 and the amount of cash receipts for the endowment fund, including interest, $27,914.72, plus the special fund for the expenses of the Finance Committee ($1,950.50) making a total of $29,865.22, showing an earning of 1836 per cent on the money expended; or in other words, every dollar spent has earned $18.36.

The Faculty is respectfully asked to appropriate $1,500 for the year 1914, this sum to be expended by the Treasurer under the direction of the Finance Committee.

January 1, 1914.

SPECIAL ACCOUNT

J. Emmons Briggs, Treasurer,
in account with the Finance Committee of
Boston University School of Medicine.

RECEIPTS.		EXPENDITURES.	
From contributions	$1,950.00	Postage	$591.79
From interest	.50	Stationery	100.45
		Printing	565.35
		Mailing list	5.00
		Office appliances	275.50
		Clerical services	399.55
			$1,937.64
		Balance on hand	12.86
Total	$1,950.50	Total	$1,950.50

Outstanding pledges $80.

January 1, 1914.

ENDOWMENT FUND

J. Emmons Briggs, Treasurer,
in account with the Finance Committee of
Boston University School of Medicine.

RECEIPTS.

From contributions	$27,604.90
From interest	101.50
	$27,706.40
Interest on fund	208.32
	$27,914.72

EXPENDITURES.

Check to Treasurer of Boston University	$14,000.00
Check to Treasurer of Boston University	13,596.64
Collections (State Street Trust Co.)	.81
	$27,597.45
Interest	208.32
	$27,805.77
Balance, January 1, (S. S. Tr. Co.)	108.95
	$27,914.72

PERSONAL AND GENERAL ITEMS.

Note.—Friends of the Gazette are invited to send in for publication in this department items of interest to the profession—personal news, changes of location, desirable openings for practice, etc.

Dr. H. W. Nowell (B.U.S.M. 1911), in compliance with a request from Heidelberg University, sailed from New York on February 12 for Germany, to confer with Prof. Fraenkel of Heidelberg University in regard to the further prosecution of the cancer research.

Dr. H. C. Ulrich (B.U.S.M. 1911) has been sent to Europe by the Evans Memorial for Clinical Research and Preventive Medicine, for the further study of pathology. He sailed on February 12 with Dr. Nowell and will visit laboratories in London, Paris, Heidelberg, Munich, Frankfort, Vienna, Leipzig and Berlin, and will return to Boston about October first.

INTERNE WANTED.—The Ionia State Hospital, Ionia, Michigan, is in need of an interne. He must be a single man, one capable of obtaining license to practice in the Stae of Michigan. A salary of $1,000 a year is offered, with room, board and laundry work. Ionia Hospital is a State institution and has always been under homœopathic control.

Apply to Dr. O. R. Long, Medical Superintendent, Ionia, Michigan.

Dr. Frank C. Richardson spent two weeks in February taking a mid-winter rest in Palatka, Florida.

Dr. Harriet J. Lawrence (B.U.S.M. 1912) is associated with Drs. Ray and Ralph Matson, tuberculosis specialists in Portland, Oregon.

Dr. Joseph Dutra has removed from Fitchburg, Mass., to 66 Merriam Avenue, Leominster, Mass.

Dr. Winslow B. French (B.U.S.M. 1891) has recently sold his interest in the shoe manufacturing business with which he has been associated for the past seven years, but has not as yet made plans for the future.

SUMMER COTTAGE FOR RENT FOR SEASON OF 1914.

At Waterville, New Hampshire, in the midst of beautiful mountains, Franconia range, a large, delightfully situated summer home with broad piazzas overlooking the famous Waterville Valley. House contains a large living-room with open fire-place, an adjoining music-room with piano, book-case and bay window with cushioned seats; living-room opens onto a large, screened-in porch, furnished; eight bedrooms, one with open fireplace; bath, kitchen and maid's room. The entire house is fully furnished and the many windows command beautiful views of near-by mountains and the valley. Golf links and tennis courts. Board at hotel within short distance of house. To be let for the entire season if desired.

For further particulars apply to "C.R.W.," care of New England Medical Gazette, 80 East Concord St., Boston.

SEROBACTERINS OR SENSITIZED BACTERIAL VACCINES.

A Distinct Advance in Bacterial Therapy.

Bacterine or vaccine therapy, carried out by the use of killed bacteria, has now been successfully applied to the prevention and treatment of many infectious diseases. Clinical experience has proven beyond question that these products produce a degree of immunity which enables the person treated to resist infection and which is of great value therapeutically. The length of time required before the immune condition is present and the local and general reactions which sometimes follow the first and occasionally subsequent doses are, however, factors calling for improvement.

To remedy the first of these defects, experiments were made with mixtures of serum and killed bacteria, with the idea that by this means immediate passive immunity could be had, as well as a more permanent active immunity, but this procedure resulted in failure, as only a slight degree of passive immunity was secured and no active immunity whatever. Besredka attributed this failure to the excess of serum present in such mixtures, and for the preparation of his "sensitized vaccine" took advantage of the discovery of Ehrlich and Morgenroth that bacteria mixed with a serum containing specific antibodies unite permanently with such antibodies. After maceration in the immune serum for a sufficient time the sensitized bacteria are recovered by centrifugalization. The bacteria, with their antibodies attached, are then washed in the centrifuge with physiological saline solution until all traces of serum are removed. Careful complement fixation and animal tests are employed to make sure that proper sensitization has taken place, and finally the bacteria are made up into standardized suspensions for administration. Since the value of serobacterins depends on thorough sensitization, and the complement fixation test proves the extent to which this has taken place, this test constitutes a vital part of the technic.

Besredka claims that sensitized bacterial vaccines or "serobacterins" possess a great advantage over the bacterial vaccines now in common use, in that their action is far more rapid, and they produce no clinical or opsonic negative phase, and no local or general reactions. His researches have been confirmed by such prominent investigators as Marie, Remlinger, Dopter, Theobald Smith, Metchnikoff, Gordon and others, all of whom found that sensitization of bacteria confers upon them new properties which render them highly effective as vaccines, free from the defects of the ordinary bacterial vaccine and "possessing an action which is *certain, inoffensive, rapid* and *lasting.*

A large number of favorable reports have appeared on the value of serobacterins in the preventive and curative treatment of such diseases as cholera, plague, typhoid fever, dysentery, streptococcic and pneumococcic infections, gonorrhea and even tuberculosis and rabies. Sensitized plague vaccine is now official in the French Pharmacopœia, sensitized tuberculin is coming into very general use in Germany and other European countries, and sensitized rabies vaccine, on acount of the rapidity and greater certainty of its action, has been adopted as the official Pasteur treatment.

The underlying principle explaining the action of serobacterins, according to Besredka, is that the bacteria prepared by sensitization are rapidly devoured by the phagocytes, and this is the cause of the absence of unfavorable reactions following their use. The combining of antibodies and bacteria outside the body disposes of a long-drawn-out preliminary process which, with the bacterial vaccines, must be done by the patient's body cells. In serobacterins, this combination of antibodies with the bacteria being already performed, their action is immediate and free from local and general reactions.

The action of serobacterins may be characterized as follows:

1. *Certain*—because the bacteria are already prepared for phagocytosis and intra-cellular digestion.
2. *Rapid*—an effective immunifying response follows the first injection in from 24 to 48 hours.

3. *Harmless*—Being saturated with antibodies, the serobacterins do not absorb any of those present in the blood of the patient, and consequently cause no opsonic or clinical negative phase. They are free from toxic action.
4. *Permanent*—Animal experiments prove that the immunity secured from the use of serobacterins or sensitized bacterial vaccines is more permanent than that following the use of bacterial vaccines.

The rapid production of active immunity marking the action of serobacterins is invaluable in both the treatment of disease and preventive immunization. In treatment of a patient infected with rapidly multiplying pathogenic bacteria, the prompt immunizing response should overcome the infection before it causes serious damage. In preventive immunization, especially in epidemics, the advantage of securing immediate immunity should make the use of serobacterins almost obligatory.

Sensitization is a delicate and complicated procedure which can be successfully carried out only in especially equipped laboratories by experts of the highest type. The difficulties surrounding the preparation of sensitized vaccines have up to the present time prohibited their general use, and the production of this superior vaccine on a scale that will make its use possible in every-day practice marks an important step in bacterial therapy.

A very complete review of this most interesting subject appears in The Mulford Digest for December, and we suggest that any physician who has not received a copy of the December Digest containing this review should secure one.

MENTAL HYGIENE SCHEDULE.

When it is realized that the cost to this country of caring for our mentally ill is increasing at the rate of one million dollars a year, any scheme which offers help in this direction will be most welcome. Apart from financial benefit to the country at large, the increasing individualization in treatment, now rapidly coming into vogue, will doubtless bring joy and sunshine to many a home which might otherwise have become saddened and depleted. Those who have read Clifford Beer's epoch-making book "The Mind That Found Itself" will realize that to him, more than to any other, we owe a large debt in this connection. The great movement which he started has found popular expression in the National Committee of Mental Hygiene. This Committee has formulated a broad and comprehensive plan of campaign, of which the "Boston Transcript" gives the following skeleton outline.

Eugenics

1. Cultivation of ideals regarding marriage and parenthood in consideration of the next generation.
2. Legislation denying parenthood to the manifestly unfit.

Education of Physicians

Increasing facilities for instruction in psychiatry; special provision for training investigators.

General Education

Development of good mental habits and not merely imparting information to be the aim of schooling; emphasis on manual arts as a means to healthful interest in life; dissemination of knowledge regarding causes and prevention of mental disorder; departments in schools where skilled psychiatrists may assist individuals to deal with their personal problems.

Social Service

Assistance in securing adjustment of social and family difficulties as well as in the adaptation of employment to the capacity of individuals in danger of mental disorders; creation of better opportunities for the study of individuals in relation to their environment; advice and aid in effecting readjustments to those who have already suffered.

General Measures of Prevention

Movements for social and industrial betterment, to prevent unequal stress and to give wider opportunities for recreation and for individual improvement; coöperation between all existing agencies which aim to control forms of illness and injury which may lead eventually to mental disorder; efficient and humane methods of examining immigrants in order that those with mental diseases or defects may be excluded.

Provision for Earlier Diagnosis and Treatment

Out-patient departments for mental cases in connection with hospitals yet independent of these agencies; systematic psychiatric examination of school children; provision for incipient and emergency cases in psychopathic wards of general hospitals; a psychopathic hospital in each of the fifty American cities of more than 100,000 population; such hospitals to be the centres of practical work in prevention and social service, as well as for efficient treatment.

Improvements in Methods of Admission and Commitment

Transfer of responsibility of patients pending commitment from overseers of the poor and police officials to physicians; improvement in the legal steps necessary for admission to hospitals, especially elimination of court measures, which often imperil patients' chances for recovery; extension of the use of the "emergency" and "voluntary" commitments.

State Systems for the Public Care of the Mentally Defective

Establishment of complete State care and State supervision of private institutions, under strong central administration; establishment of after-care and social service work under the direction or with the full coöperation of State institutions; elimination of politics from State institutions.

Institutional Provisions

Sanitariums for early cases, especially for the psycho-neuroses; hospitals of moderate size in cities, with facilities for active treatment of acute cases; colonies in the country for more chronic cases, where patients may be treated in small groups.

Features of Treatment

Increased number of physicians in State hospitals and especial provision for training young physicians; encouragement of research in many fields (pathological, statistical, clinical, field studies, etc.); better pay, shorter hours and better housing for nurses; especial attention to such measures of treatment as hydrotherapy, occupation, recreation, reëducation; provision for the physical needs of patients by providing care by surgeons, dentists, ophthalmologists.

REGULATION OF MIDWIFERY.

Child-saving work has begun in Philadelphia under the direction of the Bureau of Medical Education and Licensure of the State of Pennsylvania. It deals with midwives.

It is estimated that there are between six hundred and eight hundred midwives in this city, and an effort is being made to bring every one of them under the control of the State Bureau, to grant a license to those who are fit to practice this most delicate branch of medicine, and to prevent the unfit from continuing in it.

The reform is being effected by the enforcement of an act which, after bitter opposition, was passed by the last Legislature. This provides for the better protection of the lives, bodies and health of new-born children and parturient women through the Commonwealth, by regulating the practice of midwifery as performed by midwives in the State. Its enforcement rests with the Bureau of Medical Education and Licensure, and penalties are provided for violations of its provisions.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX APRIL, 1914 No. 4

ORIGINAL COMMUNICATIONS.

A RETROSPECT WITH COMMENTS.*

By Walter Wesselhoeft, M.D., Cambridge, Mass.

Although what I have to offer tonight is familiar to you all, you will agree to the necessity we still have of looking back from time to time over the ground traversed in order the better to understand our present status, and the more intelligently to direct the efforts of those to come after us.

It is my object to recall certain events in the local history of homœopathy occurring some forty years ago, and to contrast the status of this method with general medicine at that period and with its status today. In doing so I shall endeavor to treat the subject both from the historical viewpoint, with a glance at the psychological side, dwelling only cursorily on the scientific matters, as these have been most fully considered by others of late. As time will not permit discussion of all the weighty and complex matters suggested by my subject, I shall confine myself to merely touching on the more salient points of what has passed under my own observation, and of what I have followed with interest during the past four decades.

By the great majority of the later generation the events I wish to recall are forgotten, although their consequences for good and evil are sufficiently apparent on all sides. In fact, they force themselves upon the attention of all who have any knowledge of the past, and it must be inferred from the changes wrought by the lapse of time that those now living who were directly or indirectly concerned in the origin and continuance of the circumstances to be recited, would gladly see stricken from the records every reference to them. But these are matters of history, and for neither historians nor doctors is the maxim "quieta non movere" valid.

Some forty years ago, then, as you remember, ten honorable men, the equals professionally and socially of the average of those who so fearfully raged against them, and the superiors of many,

* Read at a meeting of the Hughes Medical Club, Dec. 19th, 1913.

were expelled from the Massachusetts Medical Society at the behest of the American Medical Association. The crime of which these men were accused was the adoption of homœopathy as an addition to their therapeutic armamentarium, or rather, as wrongly stated in the indictment, of having adopted it to the exclusion of all other medical knowledge. In order not only to discipline them for their heresy, but to brand them as infamous, they were expelled together with two other members, of whom one had been guilty of fraud and the other of grave malpractice. They were one and all charged with "conduct unbecoming an honorable physician."

The act of expulsion followed after long proceedings set on foot by the earnest and formal protests of those whose personal honor and professional standing were thus impugned, and be it remembered,—against the advice of some of the most honored members of the Society; men like John Ware, Henry I. Bowditch, Henry J. Bigelow and Morrill Wyman, whose names are still revered as among the foremost in Massachusetts medical history. The influence of these men proved at first sufficiently potent to resist the commands of the American Medical Association, but under the threatened exclusion of the whole State Society from its affiliation with the great national organization, the wave of intolerant zeal sent forth from the governing body against those supposed to be powerless in the face of its high authority, the wise counsel of the distinguished minority were finally overborne.

It is enough to recall the main facts and what followed. The appeals of the homœopathists to reason and justice remained persistently unconsidered by those having authority to act—obscure men now forgotten or shielded still by a certain respectability which no one wishes to call in question. The legal proceedings instituted by the injured ended in an adverse verdict on wholly technical grounds, while all scientific and ethical arguments were ignored or arbitrarily rejected by the court.

But though apparently defeated, as the protestants were, their position in the community proved stronger than their assailants, in their blind pertinacity, allowed themselves to suppose. As a natural reaction against the wave of professional intolerance set free by organized conservatism, a counter wave, tidal in its proportions, spontaneously arose throughout New England. So widespread and forceful in its effects did this show itself to be that but for the high regard in which individual members of the Society were held, the great merits of those classed against their will with the persecuting majority, and the generally recognized need of a strong State medical organization, this latter, by loss of respect and influence, would have fared even worse at the hands

of a righteously indignant public than it was its good fortune to do.

Then the flagrant error on the part of the ruling medical body at once became apparent to all eyes save those of its perpetrators. On this great and irresistible counter-wave of outraged public sentiment the cause of homœopathy was speedily carried forward to material successes not otherwise to be attained save by years of self-sacrificing and patient labor, and a popularity founded on the more general recognition of its principles in both professional and lay circles.

A struggling cause—as all must admit—in whatever department of human knowledge, is forced to take advantage of every opportunity to create conditions favorable for its advancement, and here it may be said that the opportunities now offered to those having the advancement of homœopathic interests at heart, were utilized to the utmost. The more pronounced effect of this general revulsion against this exhibition of the odium medicum was to teach a wholesome lesson to those who conceived themselves to be the sole custodians of all medical science, and therefore empowered to hold authority over the people in all matters pertaining to the treatment of disease. It is true that this lesson was slow to sink into the minds of those most in need of it; but it effectually checked from that time forward all further attempts, in this community and elsewhere, at encroachment on the right of private judgment among doctors. Like the recent heresy trials among theologians and the attempted expulsion of certain members from the great legal society of the country by reason of their color, it was an outcropping of the waning mediæval spirit still too evident in many directions in these modern times.

Before this lesson met with anything like conscious or intelligent acceptance, however, on the part of the orthodox, the powerful opposition to their ill-timed and misdirected attacks on the right of men to practice,—under proper qualifications, according to their deliberate convictions,—produced endless confusion in the medical mind. It not only unsettled many notions hastily conceived at the time concerning the idea, for example, of "regular medicine" and its powers and privileges, but has continued to act to the present day as an enlightening influence and a lasting warning to our legislatures to examine with great care not alone the letter, but the spirit and motives of all proposed medical legislation. Who can doubt that the somewhat exceptional position of Massachusetts in regard to the laws governing medical practice, is directly owing to the occurrences of 1871-1875; or that the fate of much legislation pertaining to medical matters throughout the country is determined in great measure by the animus then so unblushingly exhibited in state and national medical bodies? It

seems to be ordained that from henceforth the representatives of the people are not to be allowed to forget what so deeply moved the minds of men forty years ago.

The collective psychic perturbation caused by this unexpected result was seen to manifest itself in various forms. Among these were the confounding of codes of ethics with laws, with certain medical beliefs and supposed principles of science; a confusion analyzed in their masterly defence by Dr. I. T. Talbot, Dr. West and others, and later by the strong protests of Drs. H. L. Chase and Herbert C. Clapp. It was here than an obdurate conservatism manifested itself in a manner most objectionable. Members of the Massachusetts Medical Society were enjoined, under pain of severe discipline, from consulting with homœopaths, however urgent the case; in fact, under any circumstances,—an injunction so rigidly obeyed that men otherwise humane and reasonable, not only refused to enter the sick chamber of those in great peril while a homœopath was present, but refused even to meet one at an autopsy. Social ostracism, too, was attempted, and much chicanery practised in many instances, but without marked advantage to those endeavoring in this way to demonstrate the superiority of their position.

This intransigent partisan spirit—it may be here remarked—though modified in great degree by time and the filtering of common sense through dense masses of prejudice and misrepresentation, still remains as the most serious obstacle to the rational and just inquiry into the merits or demerits of homœopathy. Medical teachers everywhere are at pains to instill into the plastic minds of every successive generation of medical students, by ridicule, invective, and other traditional modes of perpetuating fixed beliefs, the old arguments, a thousand times refuted, against the new school. Occasional outbursts of futile adverse criticism, like those recently appearing in the Journal of the American Medical Association and Medical Times, testify to the fact that homœopathy is still a thorn in the flesh of "regular" medicine. Their powerlessness to alter in any manner the course of homœopathic evolution lies in their failure to grasp the meaning of the underlying principles of Hahnemann's method or its relation to the more advanced views of today.

But in the homœopathic camp the confusion of aims and purposes was scarcely less great, though marked by a general optimism contrasting favorably with the baffled grimness of the other side so bent on the destruction, root and branch, of the detested heresy growing so active and irrepressible under the favoring conditions offered. A powerful impulse was given to the growth or founding of homœopathic institutions of many kinds.

Dispensaries, hospitals, schools, sprang up in different parts of the country, and the concentration of energies, hitherto latent or scattered, promptly resulted in the formation of new societies or the revivifying of those already in existence. All this tended to raise up a new medical power in the land which remains the envy of the advocates of homœopathy throughout Europe, and promises to continue as a fruitful source of knowledge and a bulwark against the trades unionism of the more powerful organization.

But looking back over the interval of time passed since the adverse legal decision mentioned, and its immediate unforeseen results, certain grave apprehensions force themselves upon the observer's mind. We cannot close our eyes to the fact that a gradual reaction has set in following out of the material advantages gained. Whatever victory was won by the homœopaths—and it was a signal one—can be characterized only as a political and popular victory rather than as a scientific advance, notwithstanding its great value to medical freedom of thought and inquiry. Not only were the specific principles of homœopathy not strengthened by the favoring circumstances, it is not far wrong to declare them to have been partially obscured and retarded by the popular success. The vital need on the part of the oppressed to free themselves from the dependence on their oppressors in consequence of the denial of consultations in grave cases of doubt and danger, caused the more ambitious among the former to seek at once greater proficiency in surgery, obstetrics and the specialties. In this way most valuable intellectual energies were diverted from the essential problems of homœopathy as left by Hahnemann toward the study of those branches of practical knowledge and their technic in which the leaders of the old school naturally held preëminence and which lay outside the field of pharmaco-dynamics. It was inevitable that the more these branches were cultivated the more the interest was withdrawn from study and research along homœopathic lines, and the more enthusiasm for the cause waned in the minds of those who now felt themselves emancipated from all dogmatism and the authority of the Organon with its laborious tasks. It must be borne in mind that it is given to few to serve with equal faithfulness twain exacting masters. It was inevitable, too, that the wide breach already separating the new men with modern aspirations from the others who refused to free themselves from the personality of Hahnemann and the letter of his teaching should be made to gape still more. Though dead some thirty years or more, the force of Hahnemann's character and the reformatory influence of his principles and practice continued to exert a powerful influence over men who had devoted their lives to the study of his transcendental philosophy and his

materia medica. Here was a house now more hopelessly divided against itself than ever. The disastrous consequences of this division, ever widening, grows daily more apparent as time brings new views and new therapeutic measures out of the materialistic tendencies of advancing science. Upon the evil effects of this division on the progress of homœopathy it is needless to dwell.

The other unlooked-for sequel to the popular support of the homœopathic contentions with its effect on legislation was the unwelcome and misleading generalization of the inference drawn from the medical quarrel. As a matter of course, neither the people nor their representatives were prepared to understand the scientific arguments brought forward in their defence by the homœopathists, and to which the Massachusetts Medical Society had in so perverse a spirit refused to listen. The laity saw in the attempt to crush men as well qualified to practise as their assailants only an act of presumptuous bigotry to be resisted by every means in the hands of the people. Moreover, the popular mind reasoned that since nobody knew anything positive about treating disease, and at all times old women, untaught geniuses and miracle workers of every description, wrought cures in many cases which doctors had failed to reach, it was plain that everyone claiming to possess means of curing had a right to his own opinion. It followed that every citizen in his senses might freely call in whomever he might choose as a helper in sickness. Those who have attended legislative hearings on the subjects of Christian Science and osteopathy know too well the nature of the arguments brought forward in support of these popular claims.

The result of these currents and counter-currents, much as they swayed popular opinion and served as agencies to both further the spread of homœopathy and stimulate its adherents to devote their energies to other therapeutic methods, was to obscure the fundamental questions at issue. Further inquiries into the subsequent phases through which medical and extra-medical ideas have passed since the time under consideration, would make this temporary occultation more evident. But enough has been said to show that the forces which freed the practitioners of homœopathy at the period in question from the domination of the old school tended to undermine all genuine homœopathic progress. The tenacious vitality alone of the principles of this method enabled it to survive the external as well as the internal dangers threatening its existence.

But before pursuing this subject and its historical development further it is not without practical and comparative psychological interest to note very briefly the character of the homœopathic struggle for life in Europe, especially in England. While

in Germany the followers of Hahnemann were making a successful fight against the most determined efforts to deprive them of the right to prepare and dispense their own medicines, and the system was slowly gaining ground under the lead of distinguished men like the brothers Arnold, professors at Heidelberg, Hoppe in Switzerland, Jousset and Tessier in France, Lombroso in Italy, etc., it was in England that another severe crisis was reached in the year 1875.

The clash came on the occasion of the founding of the Birmingham Medical Institute, when the same unreasoning intolerance was displayed which characterized the attack in Massachusetts. The course and outcome, however, proved more to the credit of general medical intelligence and the conception of medical ethics in Great Britain than here. Briefly stated, the committee having the organization of the Institute in hand sent out some fourteen hundred invitations to the medical men of the county, among whom were Drs. Wynne-Thomas, Gibbs-Blake, Maddon and other well-known and highly gifted homœopathic practitioners and contributors to homœopathic literature. As they were practising amicably side by side with their allopathic colleagues and good feeling reigned throughout, without thought in the minds of the committee of differing medical creeds, all at first went well. But soon, stung by the lofty ambition to guard the cradle of the new Institute against contaminating influences, one Mr. Arthur Pemberton arose to object to the admission of the dangerous heretics mentioned. These, he declared, since they believed in and practised homœopathy, were "guilty of conduct unbecoming honorable physicians and therefore unfit to associate with the medical profession." Here, at once, was cause for war, which soon ceased to remain local. It spread with vehemence throughout the United Kingdom, arousing the Lancet—always the champion of medical conservatism—the British Medical Journal, that of Edinboro, and other leading periodicals to the highest pitch of controversial fury, and at once enlisted the interest of the daily press. But unlike the Massachusetts men, those of Birmingham stood squarely on both feet in their resistance to outside dictation and internal pressure and machination, voting down by a large majority all adverse motions and amendments brought in by Mr. Pemberton and his friends.

Time does not permit of fuller reference to the highly interesting polemics growing out of this episode. It exhibits the British medical man from his most humane as well as from his fighting side. I will only allude to the very able letter of Dr. Lawson Tait, well remembered for his pre-eminence as an ovariotomist and gynæcological surgeon. He pointed out that the

main homœopathic battle had been fought out at Edinboro' in 1851, with results, I should add, very like those in Massachusetts, the homœopaths having been condemned without a hearing. Professor Henderson, a noted authority on the pathology of the heart, whom Dr. Tait characterized as one of the wisest and best of men, was deprived of his professorship, and every candidate coming up for a medical degree in Great Britain was made to declare on oath that he would never practise homœopathy after graduation. In clear and forcible language the letter set forth the folly and unworthiness of all professional intolerance, and declared for true liberality in a manner so convincing that professional and lay opinion turned in favor of right and reason, thereby soon effectually silencing the disturbers of the peace.

It is seen that on both sides of the Atlantic every denial of legitimate homœopathic claims was beaten off with disastrous effects to the attacking party. It is certain that the same result would follow today were a new conflict to be precipitated upon an outwardly peaceful profession and public. The defence, however, would now be forced to take its stand on different grounds. Everywhere the scientific questions, as has been said, were then left untouched. It is true that progress was made toward the spread of homœopathy, which like other attempted reforms, sound or unsound, exhibited the gift of thriving under persecution. All new departures in medical or general science either failed to weaken the principles on which the system rested, or they actually tended to present them in a more favorable light.

On the other hand, but little evidence was brought forward out of the homœopathic ranks in support of the structure raised on the original foundation. The practice of homœopathy remained but little changed in both the factions claiming allegiance to its principles. Nevertheless, the fermentation caused in the fluids of the medical body was not without salutary effect in clearing the air for future progress. Despite both the guerilla warfare into which the open hostility had degenerated and the occasional outbursts of raking criticism to which allusion has been made, a long truce was tacitly agreed upon during which many hopeful signs have appeared on the horizon. The most significant of these has been the gradual assumption of a changed attitude on the part of the American Medical Association and its local branches toward the late objects of their most bitter enmity. In place of ostracism and every attempt on their professional standing, the dominant organization not only now readily admits homœopaths to membership, but actually urges it upon them by sending its courteous and persuasive agents with cordial invitations to enter the portals erstwhile so firmly closed against them.

The right to retain their affiliations with their own societies is freely conceded. The leading journals are now open to contributions from homœopathic writers; the medical library no longer excludes them, and the same distinguished members of the Massachusetts Medical Society who once thought themselves polluted by contact with homœopaths, now cheerfully come before the societies of these heretics dispensing wisdom before them and partaking of their salt. For many years the glad hand has been promptly extended to the humblest of them when seeking consultations over either the living or the dead. This is historical justice; but the final step in this direction, that step which every consideration of consistency, honor and true liberality demands of the Massachusetts Medical Society, remains to be taken. It is no less than to reinscribe on its roll of membership the names of the dead, once so ignominiously expelled, and to formally reinstate those living to the position they may rightfully claim. In all the long and deplorable conflict between the two schools it was not the first step that cost. That was taken with a shout. It is the final step that calls for the courage and intellectual strength to renounce prejudice, and to right a grievous wrong already confessed openly in a hundred unofficial ways. Shall the step remain untaken? Is it demanded in any quarter? No one cares to stir up muddy water; but the mud remains, though out of sight.

The questions just suggested are of historical and ethical interest, but there are others far more weighty, though as pointed out above, far too much relegated to the background. They are the questions of science, now to be taken out of controversy to the laboratory and the bedside. The answers may come out of the tardy progress of science, but they are too urgent to be left to lucky accidents happening in the slow lapse of time or to the lax clinical methods hitherto pursued. The problems they present are those to which non-homœopathic investigators are turning their attention with marked success and distinct promise to therapeutics in general and homœopathy in particular. After Ehrlich and many others, Abderhalden is already declaring that the therapy of the future is that of cell specificity.* His researches show the cells of different tissues—each in its own way—to have a specific relationship to outside agents—a matter on which there has been no question in the homœopathic mind for over a century. This relationship is found to be dependent on certain similarities of constitution of the component molecules with the agents affecting them, similarities, too, in their liability to be affected by certain ferments; all of which is not demonstrable, it should be noted,—by chemistry or physics, but by organic reactions alone.

* Defensive Ferments of the Animal Organism, p. 16.

This is proclaimed as a *new* law, the law governing the phenomena of immunity, anaphylaxis, and the process of the return to normal states after cell disturbances, functional or structural.* But it is far from being a new law. It is the same law in new terms and with the support of modern research, propounded by Empedocles nearly three thousand years ago.** Of more weight is the evidence adduced not alone for the specific structure and constitution of the cell, but, which necessarily follows, for a metabolism and reactive power all its own. As the organism produces materials within itself which act upon certain cells and on these alone, as, *e. g.*, the internal secretions, *it must be possible to discover substances which affect exclusively those cells we wish to influence toward repair or the restitution of their disturbed functions*—that is, toward cure or healing.

The next question following out of this must necessarily be, by what means are these substances with their specific relation to be discovered? Since it is admitted that neither chemistry nor physics, but biological reaction alone can lead to their discovery, it throws the search for answer to this question back upon direct experimentation; and what can this experimentation claim to be other than drug proving? Whether the laboratory operates with serums, vaccines, toxines, or drugs, it is proving in the Hahnemannian sense, with the clinical test as the final arbiter of practical value.

To those happy in their conviction that all is well with homœopathy, those to whom it presents no new problems, all such evidences of an irresistible drift toward that change of medical views, so boldly prophesied by Wright, of opsonic fame, are matters of little interest. But to others who deeply feel the imperfections of the method of which they recognize the value, and which they hope to see raised to a higher state of exactness, these same imperfections are, or should be, a powerful incentive to renewed effort. Without it, in point of fact without the most laborious pursuit of the course now pointed out by such findings as those mentioned, the homœopathic tree must wither. It cannot receive new nourishment out of the inexact observation and uncontrolled clinical experimentation recorded in its literature, recorded too often in archaic language misleading or meaningless.

Whether research as conducted in palaces lavishly equipped, such as we see arising far and near, will turn in the direction indicated, during the lifetime of those now living, is doubtful. The deep-seated aversion aroused in the scientific mind and so persistently fostered against everything savoring of homœopathy,

---

* See an article in the Munchener Med. Wochenschrift, Oct. 1913.

** Simila Similibus percipiuntur—Alexander, Theories of the Will.

will continue to deter all who value their professional respectability more highly than an unprejudiced search for truth, from touching what has not been deduced out of their own medical philosophy.

But those among us whose opportunities have sprung from the seed sown by all the men in every quarter whom this same professional respectability has sought to crush, may build on the foundations now so hopefully strengthened. It is for the rising generation with the Evans Memorial and similar institutions at their command to know for what the insight, the courage and self-sacrificing labor of those men stood in the past, and to realize that it was for the same fundamental biological laws now coming more plainly to light by the advance in scientific thought and research, that they kept the faith and fought the good fight. It is not right that this should be forgotten.

Some day medical history will be re-written, setting all this conflict in its true light. Meanwhile, how much more important it is to aid in establishing great and far-reaching principles than to search for any single remedy, though it be against a scourge as fearful as cancer! It is the difference between working for the present with its passing fame and reward, and working for the future through failure and discouragement with the single aim of adding to the wider and more lasting knowledge.

AUTOTHERAPY IN DISEASES OF THE EAR, NOSE, AND THROAT AND OTHER RESPIRATORY ORGANS.

By Charles H. Duncan, M.D., New York City.

The author believes that spontaneous cure of an infectious disease is due to entrance into the blood stream of the unmodified toxins developed in the focus of infection. When this occurs the power of the blood serum is raised, the activity of the leucocytes stimulated, with the resultant development of specific antibodies. Autotherapy, or the physician's method of treating the patient, is based on Nature's method of cure; for by autotherapy the patient is inoculated with unmodified toxic substances elaborated within his body by the action of the infecting agent upon his body tissues. In autotherapy the physician simply inoculates the patient with his own unmodified toxin complex, which often may be obtained by filtering the pathogenic exudate of the disease through a Berkefeld filter. The bacteria-free filtrate contains all of the toxins from all of the micro-organisms both causative and complicating that are in the focus of infection, and when this is injected hypodermatically the same thing occurs as when Nature cures, namely, the power of the

blood serum is raised. The activity of the leucocytes is stimulated by the action of specific antibodies to overcome and combat all of the micro-organisms from which the patient suffers.

As more antibodies are developed when the toxins are placed in the subcutaneous tissues than when they are injected into the blood stream, and as by autoinoculating the patient early the physician may often "steal a march" on the slow natural method of curing the patient, autotherapy has distinct advantages over the natural method of cure. The unmodified toxin complex is therefore the ideal therapeutic agent for treating a patient suffering from a localized and possibly non-localized infectious disease.

Furthermore, my *unmodified toxin complex therapy* has distinct advantages over any form of vaccine therapy, for the reason that the unmodified toxins are the parent toxins or set of toxins that are in the patient's body the therapeutic value of which is unchanged or unaltered by the mechanical process of filtration. On the other hand, every step in the process through which a vaccine passes in the laboratory during its preparation alters or changes its therapeutic effect in the tissues. If a vaccine cures, such cure is not because of laboratory manipulation but in spite of it. There is no certainty of cure with any heterogenous toxin or set of toxins; experience for upward of a century clearly proves this unless it be given according to the law of similars.

Administration of stock conglomerate vaccine is shot-gun therapy pure and simple and is wholly unscientific. Biologists have failed to grasp the following important principle which the writer holds as the key of therapy. The writer would emphasize this principle by calling it the Natural Law of Therapy. Reaction to a drug is the opposite and true cure for drug-action. A high resistance to a drug may be built up by repeated inoculation of the drug or by repeated drug action. For example, a person addicted to the use of morphine tends to build up a resistance to morphine to such a degree that at times he is able to take with little or no manifest drug action an amount of morphine sufficient to kill several normal individuals. In building up this resistance the patient does not establish a resistance to strychnine or arsenic; on the contrary, he builds up directly antagonistic resistance solely to or against morphine. When a sub-lethal dose of any poison is injected into comparatively active tissues these tend to develop resistance that is directly antagonistic to the toxic effect, or the *anti* to the action of the poison in question.

Let us suppose a patient is suffering from a localized infectious disease. Here he suffers from toxic substances that have developed in his body through the action of the infecting agent upon his body tissue. He is now injected with a turtle, guinea pig,

or test tube toxin or a toxin from some other patient or source. The healthy tissues will then tend to develop resistance to the turtle, guinea pig or test tube, etc., toxin respectively, as they tend to develop resistance to any toxic substance placed in them. This, however, is not the toxin from which the patient suffers, and for this reason the resistance to these toxins may not be the curative resistance to the disease. But when the patient is auto-inoculated with his own unmodified parent toxin complex, he will tend to develop resistance to these, and this is the resistance to the disease from which he suffers. The resistance to no other toxin or set of toxins is the exact resistance to the toxins in the patient's body from which he suffers. The unmodified toxins in the patient's body develop symptoms, that is, a proving of these toxins. The anti-toxins to these toxins antidote or combat or rout the toxins and thus relieve the symptoms. There is no excuse for a homœopathic physician prescribing empirically the stock vaccines when a proved remedy, the unmodified parent toxins, are at his disposal. There is no excuse for a homœopathic physician using the cast-off garments of the old school when the unmodified autogenous toxins (a proved remedy) are at hand. A committee of the Council of Pharmacy has issued a series of papers on vaccine therapy in the Journal of the American Medical Association which is concluded in the issue of June 28, 1913. It is stated in these articles:—"Ready mixed commercial vaccines should be abolished," etc. Again it is stated: "In suitable cases for bacterial therapy, autogenous vaccines are with few exceptions superior." Autotherapy is the logical conclusion of vaccine therapy.

Many homœopathic physicians claim they never have to resort to biological agents in the treatment of disease. The writer has no argument with these excellent prescribers, but the majority of us homœopathic physicians do find very often it is necessary to prescribe biological agents to cure the patient in the quickest and best manner possible. It is to this latter class that the writer directs his remarks. In selecting the appropriate curative agent the individuality of the patient must be taken into consideration. There is no toxin or other therapeutic agent that individualizes the patient as does the autogenous toxin complex or the auto-therapeutic remedy, for the auto-therapeutic remedy combats the toxins from all of the micro-organisms from which the patient suffers.

In advanced or severe infectious diseases the infection is usually mixed. Various other micro-organisms besides the principal causative one are present as complicating factors. To be most curative the reaction must be against all of the toxins that are in the patient's body; that is, the toxin from the principal causative micro-organism and its set of tissue toxic substances as well as

those of the complicating bacteria and their separate set of tissue toxic substances must be combatted. Complicating micro-organisms often present are the influenza bacillus, pyocyaneus, staphylococcus, streptococcus, colon bacillus and one or more or many other micro-organisms. It must be admitted it would be difficult to match the symptoms produced by all of these micro-organisms with any of the unproved vaccines now in use, for the reason that we cannot always identify the varieties of bacteria present. Furthermore, we cannot exactly duplicate the tissue toxic substances by employing the stock polyvalent conglomerate vaccines. As far as the auto-therapeutic remedies are concerned it makes little difference what they are; all of the exact toxins from both the causative and complicating micro-organisms and all of the corresponding tissue toxic substances of each are in the filtrate ready for use at the bedside. For the sake of further discussion let us assume the presence of an infectious disease in which there are in addition four complicating micro-organisms,—not an unusual number. The toxins from these five micro-organisms and the toxic tissue substances produced by them make a set of at least ten toxins from which the patient suffers. Collectively these are the exact remedy, and are spoken of as the toxin complex. Now the vaccine prepared according to Wright contains only one of these toxins, and it is of altered or lowered therapeutic value; furthermore it may not be the right one, or we may not be able to grow it outside the body tissues. The superiority of the auto-therapeutic remedy over the vaccine prepared according to the old and faulty formula of Wright is at once apparent. Autotherapy is of much wider application than vaccine. The results in the writer's hands are incomparable with any other therapeutic procedure. As a prophylactic to disease, the unmodified human toxins are ideal. By the use of autotherapy the family doctor again comes into his own; he no longer has to send his patients to "highly specialized specialists," or to sanitoriums where gilt-edged fees are often deflected. By its use the physician may more often treat his patient suffering from an infection and at the same time be quite sure the patient is getting the remedy fitted or adapted to his individual needs and no other. As far as a cure is concerned a diagnosis is often unnecessary. Autotherapy is being employed successfully by hundreds of physicians throughout the United States and on the Continent of Europe.

Autotherapy is obvious therapy, and so very simple in its application we wonder it was not discovered long ago.

This method of treating bronchial affections is original. It was discovered by the writer by following the rules already formulated in the regular development of autotherapy. The formulas

given will often have to be altered somewhat to suit the individual needs of the patient. The following technic was closely followed:

Sputum .....drachm 1
Aqua dest., q. s. ad.....ounce 1

Sig:— Mix in a bottle, shake well and allow to stand for twenty-four hours. Filter through a Berkefeld filter. Inject twenty minims of the bacteria-free filtrate into the loose cellular tissue over the biceps muscle.

Give no further dose until the patient ceases to improve under the preceding dose. In chronic cases this will often be about the fifth day, although the condition of the patient should always be the guide as to the time another dose is needed. In very weak patients and in very chronic cases proportionately less should be given. One injection, however, will usually cure an acute or sub-acute bronchitis within twenty-four hours.

There are various modifications of this treatment that are at times useful, but the therapeutic value of none of these has been proved to be greater than that given above. For example, the writer uses the following method in treating desperate cases in which it is necessary to hurry medication. This method is used also when it is impossible to see the patient again. It is useful mainly because it saves time. The time between obtaining the sputum and giving the injection may be shortened by thoroughly grinding a drachm of sputum in a mortar with powdered glass, or with fine, sharp, clean sand, previous to mixing it with water. When this is done the mixture should be thoroughly agitated in the bottle to dissolve the soluble toxins. When the micro-organisms are destroyed, their toxins tend to go into solution by autolysis. The fluid is then filtered through a Berkefeld filter and twenty minims of the filtrate injected at once.

The constitutional reaction following these injections is usually slight. Rarely will the temperature go over 99° F. The area of cutaneous reaction is from the size of a silver dollar to that of a paper dollar or even larger. Both reactions usually subside in from twenty-four to forty-eight hours.

Autotherapy of bronchitis is no longer an experiment. The act of filtering the sputum is simplicity itself. The cost of the apparatus is nominal. The porcelain part costs but $1.25, and a new one may be purchased for each patient if the physician thinks advisable. The writer used one porcelain part for six months. It is sterilized by rinsing under running water and scrubbing lightly with a small hand brush and then boiling. These filters are guaranteed by the makers to give a sterile filtrate, if proper care is exercised during the filtration.

Case I. Patient, male, age 16 years. Has had bronchitis for

six months, during which period he lost ten pounds in weight and had to give up work. He had been under the care of three physicians with no satisfactory progress. He has been hoarse for the past six weeks, with pain in the chest upon deep breathing. Three injections of autogenous material, given at five-day intervals, removed all symptoms. His inferior turbinates were then removed. About a week afterwards the cough returned, but one more injection cleared up this condition. He was, however, given another injection with the view to produce bactericidal elements in the blood to combat his infecting micro-organisms. There has been no return of symptoms up to the present time, a period of eight months.

Case II. Patient, male, age 52 years. Has had a catarrhal condition of the nose and throat for two years, and during the past six months has had difficulty in concentrating his mind upon his business. He is drowsy and apathetic, and the sexual power is markedly diminished. He came for treatment for his mental condition. It was then that the catarrhal condition above mentioned was discovered. He did not complain of spitting mucus in the morning; this was learned during the examination. He was given an injection of toxins every four days for three doses. After the third injection all symptoms disappeared, and have remained absent now ten months.

Case III. Patient, female, nurse, age 32 years. Has had a very severe bronchitis for the past six weeks. She has been under the care of another physician. During the past ten days there has been a remittent temperature of from 102° to 99° Fahr. She complains of severe pains in the chest and fears she has pulmonary consumption. She was given one injection at one week intervals for five weeks, after which time she went to the country, returning weekly for three weeks to receive further injections. After the first injection there was a rather pronounced constitutional and cutaneous reaction, much severer than the writer had ever seen to follow such injections. All symptoms were aggravated. These, however, passed off within forty-eight hours, when the temperature became normal. After four days the temperature gradually rose to 102° F. Aggravation of the symptoms occurred again after the second injection, but this was not so severe as after the first. In about twenty-four hours the symptoms subsided and she became better. Improvement occurred after each injection, but was particularly marked after the second, the temperature returning to normal and remaining so three days thereafter. At the end of eight weeks she had no more symptoms and was discharged.

Case IV. Patient, male, age 35 years. Appeared for treatment for a severe bronchitis of four days' standing. His eyes were

suffused with tears, the face was red and there was a tight feeling across the chest. A little mucus was raised with difficulty. One injection relieved the condition within twenty-four hours.

Case V. Patient, female, age 16 years. Has been coughing for six weeks and has lost four pounds during the past month. She has been under the care of two physicians, and has been taking creosote. One injection cleared up the condition in twenty-four hours. She was given another injection, however, at the end of a week. She has now been well for ten months.

Case VI. Patient, female, age 80 years. For many years she has had a bronchial condition beginning with the onset of cold weather. Many physicians consulted gave her no relief. She has been taking to her bed at the beginning of cold weather and remaining there for the greater part of the winter. The cough seemed to sap her vitality, and she had hardly enough strength to go to her meals. In the early part of October she was given one injection. Forty-eight hours afterwards all symptoms had cleared up. This relief lasted until January, 1913, when she was given another injection made from her fresh sputum, which again caused all symptoms to remain absent until March, when a third injection was given. She has since remained well.

Case VII. Patient, male, age 35 years. Had been drinking heavily and exposed to cold weather. When he came for treatment he had a very severe bronchitis of two days' duration. He complained of difficult breathing and tightness across the chest, and was greatly alarmed at his condition. He was given an injection of filtered sputum and placed in bed. In forty-eight hours the cough was loose and the condition was much improved in every way. At the end of four days he was practically well, although he had a slight cough. He received another injection, and in a week from the first treatment he was well and returned to work.

Case VIII. Patient, female, age 19 years. Has been coughing for about a year, although under treatment by several physicians. She had about exhausted the list of remedies recommended for bronchitis and had been advised to go to the country. She was given an injection of the filtrate of her sputum on Saturday, and on Monday morning she said she was well. At all events, she had no symptoms. She was told to return for treatment if cough or other symptom reappeared. In response to a telephone call she reported that she was well and required no further treatment.

Case IX. Patient, female, married, age 45 years. Was under treatment by the writer for acne vulgaris. In the early part of May, 1913, she called and said that while in the subway a few minutes before she had had a severe chill. There was great pain in breathing; temperature 103° F. A little blood-streaked sputum

was raised with much difficulty, accompanied by great, stabbing pains. There was consolidation over the middle lobe of the right lung extending to the back. The face was flushed and she was evidently very weak. A drachm of sputum was obtained while in the office, and within two hours she was given a hypodermatic injection of the filtrate. Two hours later she breathed much easier, and the next morning the temperature was normal, but the patient was weak. In forty-eight hours after the first injection she was given another of the same filtrate. In four days from the initial chill she was up and around the house, but still a little weak. She made an uneventful recovery.

In every one of the several cases of pneumonia, where the filtrate from sputum has been injected within twenty-four hours after the initial chill the temperature dropped to normal in from six to eight hours, that is to say, it brought on a crisis very soon after the injection.

In order to hasten the process the sputum is ground with powdered glass, then it is mixed with the water and agitated, then filtered and the filtrate injected in the manner described.

The writer believes patients suffering from pulmonary tuberculosis do better under the auto-therapeutic remedy than on any other biological agent heretofore advanced in the treatment of the disease. The physician should be controlled or governed in regard to the dose and the repetition of the dose by the aggravations and ameliorations of the patient's symptoms. In some few cases they responded well to the treatment up to a certain point or time in the treatment and then ceased to progress. The 10x dilution of the filrate then given by the mouth acts beautifully.

A dilution of the sputum does not do so well, as the sputum is not a homogenous substance. The dilution of sputum may contain particles of mucus and we never know but that these shreds of mucus contain many millions of micro-organisms, and after we have made the 10x dilution; it may not be the dilution desired, for the mucus will in time give up the micro-organisms and then we shall have a much lower dilution. This cannot happen when the filtrate is properly made, for the filtrate is sterile, homogenous and contains no micro-organisms.

Professor Wm. H. Freeman said over a year ago:—"After six months' experience in using the filtrate from sputum hypodermatically in chronic bronchial affections, especially chronic pulmonary tuberculosis, I am convinced this is one of the great therapeutic advances of the age. Dr. Duncan's toxins are the most scientific vaccine ever used in medicine."

Dr. J. L. Bardes of Newnan, Georgia, reports the following case:

Case X. "Patient, female, age 4 years, had suppurative otitis media for three years and ozena for quite a while, all very offensive to the smell. February 25, 1913, I made a filtrate from the cotton saturated with the excretion from the nose and ears, and gave five minims hypodermatically. Suppuration lessened and improvement in general was marked for about eight weeks, then it seemed to come to a standstill. The suppuration had ceased in the nose and one ear, and the odor was scarcely perceptible. On May 15th I gave five minims from a new filtrate. The patient went right on to recovery and is as well and as fat as a pig."

Dr. C. Earl Fenner, of Sacramento, California, reports the following case:

Case XI. Patient had chronic catarrhal otitis media with considerable deafness and severe pharyngeal and nasal catarrh. I gave five doses ranging from eight to twenty minims of the filtrate during a period of six weeks. The last and largest dose gave a strong reaction both systemic and local from a two-weeks' old filtrate. There is a very marked improvement in the hearing and general health. The excretion has dried up, from which to make more of the toxin complex. You state—"Use the fresh filtrate." What am I to do?

This question of Dr. Fenner's brings up an important point that every one meets at some time, in treating patients by autotherapy, and for this reason the writer will pause and answer it. There are two methods of precedure open. The first is to make enough of the toxins during the early treatment to last till the cure is complete. The second is: grow a culture from the exudate, and employ the whole culture as you would the exudate, *i. e.*, mix the scrapings of the micro-organisms from the culture with water, allow this to stand for twenty-four hours, filter and employ the filtrate as usual. The first is the one the writer recommends. If you cannot use fresh filtrate, use it as fresh as you can.

Case XII. Patient, female, age 4 years. Three weeks after apparently recovering from the measles was brought for treatment for suppurative otitis media. There was a profuse discharge of pus from the right ear, very foul smelling. The mother was instructed to catch all the discharge from the ear during the day on small pieces of cotton. To place these in a bottle and bring them to the office. An ounce of water was poured over this and it was allowed to stand for twenty-four hours, after which time it was filtered and ten minims injected into the loose cellular tissues over the biceps muscle. In four days' time the child was well, and has had no return.

Dr. Pfiffer reports several cases of a similar nature cured at the Ophthalmic Hospital in New York City.

The unmodified autogenous toxins bear a similar relation to the vaccines now in use, as the homœopathic remedy bears to the fluid extracts and decoctions of the old school.

The basal consideration underlying the therapeutic value of the auto-therapeutic remedy is that it should be fresh and unmodified by the pathologist.

References for Autotherapy Investigation.

1. A Surgeon's Contribution to Medical Philosophy or the Cure of Sepsis. The Homœopathic Recorder, May 15, 1911.—By Charles H. Duncan, M.D.
2. The Cure of Sepsis. North American Journal of Homœopathy. July, 1911.—By Charles H. Duncan, M.D.
3. A New Method of Vaccine Treatment and Prevention of Sepsis. Medical Record, September 16, 1911.—By Charles H. Duncan, M.D.
4. Cures and Recoveries of Sepsis. The Journal of the American Institute of Homœopathy, October, 1911.—By Charles H. Duncan, M.D.
5. Autotherapy. Lancet-Clinic, November 4, 1911.—By Charles H. Duncan, M.D.
6. Autotherapy. North American Journal of Homœopathy, November, 1911.—By Charles H. Duncan, M.D.
7. Gonorrhœa: Its Prevention and Cure by Autotherapy. Medical Record, March 30, 1912.—By Charles H. Duncan, M.D.
8. Autotherapy. American Veterinary Review, August, 1912.—By Charles H. Duncan, M.D.
9. Autotherapy. American Veterinary Review, July, 1912.—By D. J. Mangan, D. V. S., Chief Veterinary of The Street Cleaning Department of New York City.
10. Relation of the Vaccine Therapy to the Law of Similars. Transactions of the Homœopathic Medical Society of the State of New York, 1911.—By Charles H. Duncan, M.D.
11. Autotherapy. Transactions of the Homœopathic Medical Society of the State of New York, 1911.—By Charles H. Duncan, M.D.
12. Defense of Autotherapy. Chironian, September, 1912.—By Charles H. Duncan, M.D.
13. The Autogenous Toxins in the Treatment of Disease. Transactions of the Veterinary Medical Society of the State of New York, 1912.—By Charles H. Duncan, M.D.
14. The Autogenous Toxins. Transactions of the Veterinary American Medical Association, 1912.—By Charles H. Duncan, M.D.
15. Autotherapy. Medical Era, October, 1912.—By Charles H. Duncan, M.D.
16. Autotherapy. British Veterinary Journal (London).—D. J. Mangan, D. V. S.
17. Autotherapy. New York Medical Journal, December 14 and 21, 1912.—By Charles H. Duncan, M.D.
18. Intra-Alimentary and Intra-Pulmonary Diseases. Cleveland Medical and Surgical Reporter, December, 1912.—By Charles H. Duncan, M.D.
19. Autotherapy in Acute Articular Rheumatism. Boston Medical and Surgical Journal, March 6, 1913.—By Charles H. Duncan, M.D.
20. Autotherapy versus Operations. The American Practitioner, July, 1913.
21. Unmodified Antitoxins in the Treatment of Disease. American Practitioner, October, 1913.—By Charles H. Duncan, M.D.
22. Radical Treatment of Chronic Catarrhal Conditions of the Respiratory Tract. Paris Medicalè, January 24, 1914.—By Charles H. Duncan, M.D.
23. Autotherapy in Gynecology and Obstetrics. Medical Times, April, 1914.—By Charles H. Duncan, M.D.
24. Dr. Charles H. Duncan's Autotherapy considered from the Point of Biochemistry. Homœopathic Record, October, 1913.—By Eric Graf von der Goltz.
25. Resume of Autotherapy in The Prevention and Cure of Purulent Infection. Practitioner, (London). Accepted but not printed yet.—By Charles H. Duncan, M.D.
26. The Role of Auto-inoculation. Proceedings of the Royal Society of Medicine, February, 1911.—By Dr. Clive Rivers.
27. Autogenous Virus in the Treatment of Sepsis. Chironian, November, 1910.—By Charles H. Duncan, M.D.
28. Autotherapy in Purulent Infections. American Practitioner, September, 1913.—By Charles H. Duncan, M.D.
29. Autotherapy in Surgery. American Journal of Surgery, October, 1913.—By Charles H. Duncan, M.D.
    These have been abstracted by various other standard medical papers on the continent of Europe and America.
30. Urine as a Therapeutic Agent. And Blood as a Therapeutic Agent. Therapeutic Record, January, 1914.—By C. H. Duncan, 233 Lexington Ave., N. Y. City.

If only myself could talk to myself
As I knew him a year ago,
I could tell him a lot
That would save him a lot,
Of things he ought to know. [Kipling.

THE EARLY RECOGNITION OF ECTOPIC PREGNANCY.

By DeWitt G. Wilcox, M.D.,
Professor of Gynecology, Boston University School of Medicine.

As we look over the various lesions of the human body to which surgery ministers, it is difficult to select one wherein an early and exact recognition is more highly essential and where at the same time the real lesion is so obscure as in ectopic pregnancy. An impending perforation of a gastric ulcer is truly ominous and demands prompt recognition; likewise an over-distended appendix, or gall bladder, or even an intestinal obstruction; but even those portentous lesions will admit of a delay that nature will not tolerate in the rapidly distending friable tube wherein a human embryo is temporarily housed. Moreover, those other mentioned lesions cast a more distinct "shadow before" and announce their coming with less confusion of conflicting and intermingling shadows.

In the "early days of ectopic pregnancy," that is, when we first began to recognize the lesion, it was my privilege to write one of the first monographs upon the subject. Three consecutive cases coming to my notice almost at one time impressed me deeply with the importance of singling out the signs and symptoms of this peculiar freak of perverted physiology. The paper was published in the Philadelphia Medical Journal, 1900, and the demand for copies soon exhausted the edition. It is rather interesting to note that little or nothing has been added either to the pathology, etiology, or symptomatology of this lesion since the publication of my monograph.

So recent as the Pittsburgh meeting of the American Institute in 1912 a prominent surgeon from the East remarked that he thought it a rare instance wherein any surgeon saw a case of tubal pregnancy unruptured. I took the attitude that it was possible in nearly every instance for both the family physician and the surgeon to recognize the condition before rupture and that in the large majority of instances it was inexcusable not to so recognize it.

For the double purpose of again putting this matter into print and as an aid to the early recognition of ectopic pregnancy, I am presenting the matter much as it was given fourteen years ago, merely adding by foot-notes such facts as have later been noted.

Ectopic pregnancy is a condition which, from its inception to its close, is highly dangerous to both health and life. This danger is greatly increased because the condition gives so little warning of its presence, and the symptoms resulting are so out of proportion to the ever-present danger. Were the patient obliged to take to her bed from the first, because of pain or other symptoms, the danger would be greatly lessened, but the mere fact that she is on her feet and feeling fairly well, keeps the sword of Damocles over

her head. A sudden exertion, lifting a piece of furniture, running upstairs with a child in her arms, or straining at stool, may cause a rupture of the delicate membrane and the patient is dead before help can reach her, or if not so terrible an issue, she has started on a long road of invalidism from which she may never recover, save through the aid of the surgeon's knife.

With the details of a number of such cases before me, I am convinced that it is possible to recognize tubal pregnancy in its early stages, even as early as the fourth or fifth week, and before rupture of the tube. Indeed, if it is not recognized before rupture, the danger has been averted only in part.

It seems now settled beyond dispute that impregnation takes place in the tube near the uterine extremity, or possibly at the tubal juncture with the ovary. Bearing this in mind, also, that the ovum both impregnated and unimpregnated, is urged toward the uterus by the cilia lining the tube, and a mild contractive effort on the part of circular fibers, we readily see that any factor acting as a bar to the ready progress of the ovum facilitates to that extent the possibility of tubal pregnancy. This bar may be an inflammation which has destroyed the cilia or created a partial stricture in the caliber of the tube, not sufficient to prevent the ready passage of the male element of fecundation, but sufficient to prevent the return passage of the fecundated ovum; or, again, it may be that the caliber of the tube has been lessened by encroachments upon it from without, by tumors, adhesive bands formed by peritonitis, or torsion of the tubes. Every hour that this ovum is delayed lessens the possibility of its escape into the uterus, because it is steadily increasing in size.

Just what time is required for the passage of the fecundated ovum through the tube is not definitely known, but, according to the best authorities, this passage probably occupies not less than eight days, and as the ovum has enlarged to about three times its original size during that period, it must of necessity find its way into the uterus very soon thereafter or forever remain without.

It is a well-known physiological fact that the uterus undergoes a certain preparation each month for the reception of the ovum. A few days prior to the arrival of the expected guest that organ "cleans house," and adds new interior furnishings; old shreds of membrane are cast off and a new heavy lining of a velvety character, richly supplied with blood-connections, is formed in the upper part of the uterine cavity; this is the decidua. If the ovum arrives as "guest-in-ordinary" (that is unimpregnated) then the new furnishings are torn down and cast off, and form part of the menstrual flow. If, however, the ovum comes as a royal guest

(impregnated and developed up to six or eight days) then is the reception made befitting the guest. The doors and windows of the decidua are closed to prevent the untimely escape of the guest or intrusions from without. Richer blood supply is added and the velvety hangings are materially increased in thickness. One corner of the reception hall is set aside for the guest, where it is permanently stationed and nourishment sumptuously provided. This guest, the ovum, sends out rootlets or villous growths, which ramify into the decidua, and the circulation between the uterus and ovum is established.

It is a most entertaining sight to the scientist to watch the conduct of affairs when the host has been assured that a royal guest will soon arrive and the latter fails to keep the appointment. The ovum, impregnated in the tube in the usual way, sends couriers announcing its early arrival in the uterus, where the usual preparations take place. The eight days expire, but the guest does not appear; ten days and two weeks pass, yet he fails to come; the furnishings and hangings are wrought more elaborately as though that would hasten him. The uterine decidua has attained two or three times the size it would attain were it waiting an unimpregnated ovum; but at the end of four or perhaps five weeks, no guest has appeared and in disgust at such uncivil treatment, the host ruthlessly tears out all evidence of the elaborate preparations and casts them forth. The decidua has been expelled, and in this act we have one of the most positive signs of tubal pregnancy. This decidua may be the size of a placenta in a three months' uterine pregnancy, and the physician, if he is not alert, will be induced to think he is dealing with an ordinary abortion and may search long and carefully for a fetus which comes not.

We now go back to the ovum and see what sort of treatment it has received at the hands of the tube which has aspired to the dignity of entertaining the royal guest, who had intended making there only a short sojourn on the road. This tube, recognizing that it must prepare a fitting chamber for one of honor, has also upon short notice, added new furnishings which heretofore were foreign to so humble a house. A tubal decidua* has formed about the ovum, which has increased in size as the ovum grew, until at the end of two or three weeks it is able to provide its guest with all the nourishment and necessities that the royal palace of the uterus could provide, only in cramped quarters. But the ambition of the tube has not reckoned with its capacity or powers of endurance, for the royal guest has so increased in size that the walls of the house are full to bursting and impending disaster threatens.

* Some recent investigators claim that the tube has not the power to produce a decidua vera; but that what appears to be a tubal decidua is in fact a fetal formation. There is, however, good authority for the belief that while a decidua does not form in every case of tubal pregnancy, it does frequently appear.

Thus, by fact, and somewhat by analogy, have we considered the pathology of tubal pregnancy. With that in mind, the recognition of the symptoms is comparatively easy. A sign seldom failing is an impression which the patient has that she is pregnant. Particularly is this present if she has already borne children. She will state that she is conscious of the lower pelvis, a peculiar indescribable sensation, which knowledge may be unusual to her; the abdomen is slightly sensitive, there is a pain in ovary or tube upon bowel-movements, there is some increased frequency of urination. She may or may not feel nauseated, but is likely to feel so after four or five weeks have elapsed.

The time comes for her menses, but no flow appears. If her habit be that of prompt regularity, this is almost a positive sign of pregnancy, but not necessarily of tubal pregnancy. In two or three days her anxiety is relieved by discovering a little flow, but this ceases perhaps after six, twelve or twenty-four hours. This flow is caused by the uterus in its attempts to get rid of the unnecessary uterine decidua, for be it remembered that the ovum now impregnated in the tube may have been lodged there four weeks previous, at the last menstrual period, and at the present moment, although she has missed but one period by a few days, she may have an ovum of four weeks' development in the tube; hence quite a decidua has formed in the uterus which it is endeavoring to cast off. She may mention that her breasts feel sore and her morning-sickness is increased. This periodic irregular flow of blood is an important sign.

Most of the above symptoms give to the physician a suggestion that the patient is pregnant normally, but this show of blood a week or so after the period is due, should arouse his suspicions that all is not right. He need not wait long for a confirmation of these suspicions; it will come if he is watchful. Next, he is told that there is more flow, which, like the other, lasts a few hours and then ceases, or may appear when the patient is on her feet. She complains of an unpleasant sensation in the right or left ovary, it has become more sensitive, she avoids sudden movements or jars. About this time the patient may have sudden, severe sharp pains in the sensitive side; these may be of a character to make her scream out in agony or fall in a faint upon the floor. These pains may be repeated in a few hours or days or may only come when she makes an exertion, but with each pain she is quite likely to have a little uterine flow. Now, it is not to be understood that this pain means a rupture of the tube, because a single tube cannot rupture every two or three hours or days, but it does mean that the tube has become as full as it will hold with the constantly increasing ovum as a guest, and, because it cannot further stand such internal pres-

sure, its peritoneal covering has begun to tear in places and the pain results. These tears may extend, not only through the peritoneum but through the entire tubal wall, and if they should happen to occur immediately over that portion of the surrounding decidua where the blood-supply is thickest, a very brisk hemorrhage will occur. Each of these tears seem to stimulate the uterus to contract, and hence we have an external show of blood. If a physician sat at the bedside of a patient whom he had never before seen, and she related to him such symptoms as above mentioned, he could not be excused for failing to recognize the true condition; but if he were in doubt he has the means at hand for satisfying himself beyond all question,—the discovery, by a bimanual examination, of an enlargement to the right or left of the uterus. This may be as large as a walnut, lemon, or an orange, or it may be bologna-shaped. It is extremely sensitive and must be handled carefully. It will also be seen by this examination that the uterus is enlarged almost to the extent of the duration of the suspected pregnancy. The cervix will be soft and may be purple in color like a normal pregnancy. A few days later the physician may be told by the patient that her troubles are over with, as everything has come away and she shows him what appears to be an after-birth. It is so nearly like it he may not detect a difference, but his precaution will induce him to make an examination, whereat he finds that while the uterus is smaller than before, there is still the same lump in the side, just as sensitive, and the patient still has her symptoms of pregnancy. It was the decidua which has come away and not a placenta. Moreover, she will continue to have her agonizing pains, after each one of which she feels faint. She shows clearly now the loss of blood; her lips are pale, her eyes hollow, and she is constantly thirsty.

We will now suppose a period of from six weeks to two months has elapsed since the suspected pregnancy began. An urgent call reaches the physician to come to his patient immediately; she is dying. He finds her pulseless, blanched, breathing softly, cold and clammy. A friend says, "She screamed out with agony, put both hands over her lower abdomen, tried to get up and fell back fainting." We have finally come face to face with an issue which nature has been predicting forcibly, could we but understand her language.

The tube has ruptured from end to end, or such portion of it as contained the fetus. The thousands of little rootlets, which carried blood from the lining of the tube to the tubal decidua, have been torn open and are pouring quantities of blood into the abdominal cavity, or the ovarian artery may have been ruptured also, and thus is the hemorrhage increased. Even yet the patient is alive,

hence there is hope of saving her, and it is far better to recognize the true condition and apply the remedy, even at so late an hour, than allow it to go unrecognized, and cause death. I need not say that the one remedy is a rapid abdominal section, securing blood-vessels, turning out clots, and getting the patient back to bed as quickly as possible, with all means at hand for combating shock. But how infinitely better to have determined the question earlier and to have applied a similar remedy with one hundred chances in favor of success!

All orthodox rules have exceptions, so these rules of symptoms have theirs, and these we must note most carefully. Our patient may never have been pregnant, hence she will not be able to tell us that she has such symptoms, but she can tell if she has any peculiar sensations low in the pelvis, whether faint or nauseated, with frequent urination, or if her breasts are sore. Again, she may have had an old salpingitis which has caused her much suffering and hence is never free from ovarian pain. But that will not prevent the delayed menstruation, the irregular gushes of blood, the well-defined tumor in the pelvis. We may fail in rare cases to have the delayed menses, but I have never failed to find such menstruation peculiar in form; either it was exceedingly slight, which fact impressed the patient sufficiently to remember it, or it was so profuse as to be alarming, or it was intermittent. Next, we may not have the severe, sharp pains, due to peritoneal tears of the tubes, because the tube may not tear at all, but in their place we find a steady, severe ache, never ceasing, and becoming more severe each day, owing to the steadily distending tube.

While the conditions enumerated may vary or fail to appear, there are three signs which will determine the diagnosis almost positively: First, some slight suggestion of pregnancy, with or without irregular gushes of blood from the uterus. Second, tubal or ovarian pain, either sharp, agonizing and periodic, or severe and continued, with daily increase. Third, a lump on the right or left side of the uterus, sensitive, tense, and frequently pulsating. If you consider a moment you will recall that just this set of symptoms seldom accompanies any other condition.* A normal pregnancy seldom causes ovarian pain of a marked character, neither does it cause enlarged tubes that are sensitive and tense.

A salpingitis, either acute or chronic, seldom influences the

---

* A wider experience has taught me that there are certain atypical cases in which many or all of the above symptoms are absent. One occurred this present week, wherein the pain due to the ruptured tube started from the right shoulder blade and extended through to the stomach, giving all the characteristics of a gastric ulcer crisis. In her case the menstrual period was not delayed one day. The only suggestion of tubal pregnancy was colicy pains in and about the uterus, morning nausea, a feeling of fullness in the breasts, and a distended abdomen after the rupture which occurred at the time the pain appeared in the shoulders. The true condition was recognized and the patient operated upon in time to save her life.

menstrual period to any great degree; neither does it produce any sign of pregnancy. It causes tubal pain and produces a lump on one or both sides, but it is generally more of a constant, dull ache, accompanied, especially in the acute stage, by high temperature, rapid pulse, tense abdomen, and the general signs of peritonitis. When it has passed the acute stage and the temperature and pulse have come down to nearly normal, the condition has existed so long as to throw out all question of tubal pregnancy; moreover, we can generally get a history of this acute stage having previously existed, a symptom confirmatory of the diagnosis of salpingitis.

Ovarian tumors, pelvic abscesses, fibroid growths, polypi, and peritonitis, all have their distinguishing features distinct from the one under consideration. Another exception must be noted, and that is, the tube may never rupture fully and thus the fetus may be retained there, reaching full development and viability, either to be removed alive by surgical art or to die from imprisonment; but it is rare that the tube endures to full term. Indeed, it seldom holds out over three months, while the greater number rupture at six weeks.

Again, we may have the condition known as tubal abortion, in which the ovum of four or six weeks, or the fetus of three months, escapes from the tube by the way of the fibriated extremity, carrying with it the decidua or placenta, according to the age of development. Up to the point of such escape, the conditions do not essentially vary from those just laid down, but at the moment of such abortion there is a marked shock, distinct pain and more or less sign of hemorrhage, thus varying but little from the signs of rupture. The loss of blood may be quite as severe and even fatal, as if rupture had taken place. The treatment is the same as in tubal rupture. Tubal pregnancies appear much more frequently after a rather protracted period of sterility than at other times. Any tubal defect which interferes with an early impregnation may be the determining factor in causing a tubal pregnancy.

Thus far we have considered the symptoms produced by tubal pregnancy before and including the moment of rupture. We will now go further and note the condition weeks or months after the ovum or fetus has escaped from the tube, either by tubal abortion or rupture. We will assume that the shock at the moment of rupture was so slight that neither patient nor physician was aware that such had occurred; or the shock may have been great and the patient barely escaped with her life, and only after long weeks of suffering has she again assumed her place in the family. However that may be, our assumption is that the patient lived, but because of long-continued ill-health she seeks medical advice. After the rupture, one of two things happens to the escaped ovum; either it

lives or dies. If it lives, it is because it has escaped with its membrane intact and its placenta or decidua still attached, and because this placenta has been able to fasten itself upon some surface from whence it can draw sufficient nourishment for the support of the dependent ovum. This surface may be the intestines, the bladder, the omentum, peritoneum, outer surface of the uterus, or any place to which it can adhere.

Again all goes well and the ovum continues to develop as rapidly as though at home in the uterine cavity. We will assume at the fourth or sixth month, the patient consults a physician, believing that she is normally pregnant. She has forgotten her early history, how she had ovarian pain, gushes of blood, a little shock, some faintness, etc., because it was months ago. She only knows she is pregnant because she feels motion and she has enlarged. Why should the physician suspect that all is not right? First, because she has had more abdominal pain from the start than any normally pregnant woman should. Second, she looks anæmic; the physician will be impressed that all is not well. She has most obstinate constipation and some attacks of fever, owing to localized peritonitis. The reciting of these symptoms will induce the physician to make an examination, by which he discovers that the uterus is very small for a six-months' pregnancy. The cervix is hard and contracted and the entire pelvic floor is thick and unyielding. He then asks the leading questions which will bring out the almost forgotten early history, and, behold, the problem is solved and he has saved himself the mortification of sitting up nights and waiting days for a delivery which can never take place. There are some cases, however, where even the most painstaking examination and history research fail to throw sufficient light to enable the physician to recognize an advanced case of abdominal gestation.

Next is the other alternative, namely, that the ovum perished after its escape from the tube. Here is what takes place. The escaping blood, shreds of membrane, decidua, and clots settle into various places in the lower abdomen and pelvis. Through rare good fortune, nature has sealed the bleeding points in the ruptured tube, so further danger from that source is averted; but a new danger at once springs up, namely, septic peritonitis or general septicemia. The clots and membranes have no means of self-preservation, hence they must disintegrate and the peritoneum must absorb them. If they be slight in quantity and the peritoneum is "up to par" it will absorb them and no ill results follow. If not, peritonitis follows and the patient is doomed to future invalidism unless the true condition is recognized and the right remedy applied.

How may we recognize it, even at so late a period? Only by

getting a careful history from the very first of the breakdown and noting every symptom carefully. The attack of peritonitis will be distinct in her mind because of its severity. The first question for the physician then to answer is, What caused the peritonitis? Women do not have such attacks without cause. Was it salpingitis, traumatism, or an escaped ovum? Her story will answer it.

I recall such a case wherein a woman had been treated a year for what seemed malaria. I was called in council, simply because she had pelvic pain. She told so straight a story that I was enabled to diagnose her condition even before I made an examination. One year before she had gone with a few friends on a tramp into the country; it was a few days prior to her menstrual period and she got her feet wet. She failed to flow on time, but attributed it to the cold. In a few days she began having uterine pain, but no flow; two weeks passed and she suffered such pains she must needs go to bed. Then came a little flow, followed a few days later by more. Later came a severe pain which required her doctor in the night; she was in agony, nauseated, a cold sweat, and rapid pulse. He gave her morphin for the pain and whiskey for the faintness. She was confined to her bed for six weeks with what he called malarial fever, because she had high temperature and occasional chills. Gradually she got around, but was never free from pain and still had occasional attacks of chills and fever. Upon my advice she submitted to an operation and I removed, even at that late date, the products of a ruptured tubal fetation. In the posterior cul de sac was a mass of semi-organized tissue, the remains of the decidua, which was keeping up a continual septic condition, while nature was trying her best to absorb and carry it away.

The question arises, How can a woman survive a tubal pregnancy whatever may be its outcome? Some are saved from the fatal hemorrhage at the time of rupture by reason of the rupture taking place at a point remote from the placenta and ovarian artery, in which case bleeding will cease of itself. Yet be it remembered that internal bleeding is always more dangerous because there is no air to aid in coagulation of blood. Again, the rupture may take place at the lower surface of the tube, and the ovum and blood escape between the two layers of the peritoneum making up the broad ligament; in that case the bleeding must be self-limited. Another question: Can a woman live with a live, full term child in the abdomen external to the uterus? Yes, she may not only live till the child dies, because of its inability to receive sufficient oxygen from the mother, but she may live long after all vestige of such a being has been removed piecemeal from her body. Gradual disintegration may take place until the soft parts are absorbed and the bones discharged by the rectum, through ulceration, into the

bowels, or they may ulcerate though the vagina or abdominal wall. Again, a fetus may reach a development of three months in the tube and there die without rupture of the tube or without causing any great amount of disturbance. In such a case the fetus becomes mummified or calcified and remains throughout the life of the mother.

The foregoing are not imaginative conditions or textbook rehearsals but bedside symptoms, as I have been able to draw them out and later verified the predicted condition by opening the abdomen and removing the product of fecundation in whatever state it was found. At a recent state meeting of physicians, I listened to a paper written by a physician who had just seen his first case of tubal pregnancy. He with two fellow physicians had the case under observation for about six weeks. It went on to the stage of rupture and the patient was barely saved by a timely operation. He made this statement: "Up to the time of the rupture there was not the slightest symptom to suggest tubal pregnancy." As a matter of fact, there were all the symptoms one could possibly want to enable one to say positively that it was tubal pregnancy, for in relating the history of this case, he used these words: "I was called to see Mrs. X. at such a date, she was suffering from very severe sharp pains extending up the abdomen from the ovary. She informed me she had not menstruated for two months. The pains were so severe as to compel her to lie down. When I saw her a few days later, she had noticed some slight flow," and so he continued to relate, the course of the most typical case of tubal pregnancy I ever saw; but until after the rupture he insisted there was not a symptom to suggest it.

It is beyond my intent to enter into the treatment, but as that can be summed up in a word, I will give it: As soon as it has been demonstrated that tubal pregnancy exists, there is but one safe treatment,—removal of the tube. The moment rupture has taken place, the patient stands but one chance in a hundred of recovering, unless the abdomen is opened, the tube tied off, and hemorrhage controlled. If the patient has survived this accident and has become septic, the abdomen must be opened to remove further infection. If the child has grown full term and is alive or dead, it is next to manslaughter not to open the abdomen and save one or both victims; hence the one word for treatment of this condition is "operation."

If I have drawn my paper out to a tiresome length, it has been with a desire to draw so clear a picture of a condition, dangerous in the extreme, that it may be recognized at an early stage by any careful man.

REMARKS ON GLYCOSURIA.*

By Stephen H. Blodgett, M.D., of Boston.

A few years ago I tried to classify the various forms of glycosuria, or so-called diabetes, in order that we might begin the study of the various forms more intelligently. I will first mention very briefly the classification which I made at that time, and which seems to me, from past experience, to be quite practical and to give us a good working basis as a foundation for future investigation.

Form A consists of those cases where the original seat of the trouble is in the fourth ventricle. These cases are comparatively rare and are usually discovered only through a routine examination of the urine. Cases of this class are often puzzling to the physician, as all the accompanying brain symptoms are often absent, or during the early part of the disease, at any rate, are only slight. The physician is more or less at a loss regarding his diagnosis and when, perhaps solely as a matter of routine, he examines the urine, he is greatly surprised to find sugar present; and then he is very apt to think it is a case of diabetes, whereas the source of the primary trouble is in the brain, and the glycosuria is only a secondary occurrence.

Under this class should be placed glycosurias following cerebral hemorrhage, concussion of the brain, pressure from brain tumors or new growths, or cerebral edema; in fact, any process causing injury to, or pressure on the fourth ventricle. It would also include most of the cases incorrectly named diabetes of central nervous origin.

As time goes on and as I see more cases of this form, I am becoming more firmly convinced that this should not be classified as a separate form, but that the process which causes sugar to appear in the urine is in the liver, and that only the impulse which starts this incorrect process into activity is situated in the fourth ventricle.

Form B.—This is the most common form, and the seat of the improper metabolism that causes the sugar to appear in the urine is in the liver. It can be divided into two broad types, depending on how much some of the other processes of the liver are interfered with. It is much more likely to affect the well-to-do, rarely occurring in persons of the laboring class, or in children.

We can divide this form into two broad classes.

Symptoms :—Subdivision *a*. This type is usually seen in persons between thirty and sixty years of age. The patients are usually stout, very fond of their food, and disposed to lead a more or less sedentary life. While they are taking a natural diet, there

* Read before the Homœopathic Medical Society of Western Massachusetts.

may be thirst, depending in degree on the amount of sugar present in the urine; the urine is apt to be increased in amount, though rarely running over 3,000 c.c. in twenty-four hours, with a specific gravity running from 1028 to 1040, and the sugar varying from 50 to 100 grams in twenty-four hours. There may be a very slight trace of albumen in the urine, while almost always there will be found a very large number of large-sized uric-acid crystals in the sediment, and frequently calcic oxalate crystals, and a few hyalin casts may be found. The color of the urine will be normal; and it will usually be very strongly acid. Diacetic acid never shows in uncomplicated cases of this class, and it is only when they are complicated with the pathological conditions found in form D that diacetic acid will appear. Acetone rarely ever shows, and if so only in the slightest trace. This particular type is more likely to occur in men than in women; and the presence of the sugar in the urine is very liable to be discovered at first by accident, as during an examination for life insurance.

Symptoms, Subdivision *b*.—On the other hand, another type of this form B may occur in patients of ordinary build in whose urine no sediment of uric acid shows. It is more likely to occur in persons between fifty and seventy years of age. There may be the following symptoms: gangrene of the toes, itching of the labia, boils and carbuncles. The other symptoms are the same as those in the subdivision *a*, with the exception that the patients frequently have a painful neuritis, a urine more frequently somewhat pale and only slightly if at all increased in amount and rarely having uric acid in the sediment.

Form C.—This form of glycosuria is due to an acute process in the pancreas where a kind of disorganization takes place.

Symptoms: It may occur at any age, and is most frequently found in children and in adults of the working class. The most marked symptom is intense thirst, and the curious fact in connection with this symptom is that often the patient can tell us on what particular day the intense thirst commenced. I have seen cases where a mother has told me that her child was perfectly well up to the time of going to bed on a certain day, and that during the night the child had waked up several times and called for water, though never having done such a thing previously; and from that night the child had had the most intense thirst. As a rule sugar is present in rather large amounts, running from 75 grams to even 600 or 800 grams in a day. Of course the specific gravity is high and the amount of urine is large, varying from 2,000 to 15,000 c.c. in twenty-four hours. Acetone and diacetic acid are almost always present in large amounts, generally a few hyalin casts may be found in the sediment, and albumen

is present to a comparatively slight degree. Next to the intense thirst, and dryness of the mouth, the most noticeable symptom is apt to be an increased appetite, and great loss of weight and strength. There is also in many of these cases a spot in the region of the pancreas which is tender on deep pressure. This appears more plainly if deep pressure is made over the various places in the abdomen with one finger, the same depth of pressure finally being made over the pancreatic region where much increased tenderness will be found. This is the same spot which I described in connection with the pancreatic vomiting of pregnancy, cyclic vomiting, etc.

Form D. This form resembles in a great many respects Form C, and may be considered the chronic form, while Form C is the acute form. The pathology in this class of cases is very largely the same as in Class C, but the changes go on more slowly, and there are some slight variations in the pathological findings. The pancreas is rarely so disorganized as it is in class C.

Symptoms:—It is very insidious in its onset, and usually the first symptom that the patient notices is either the increased amount of urine passed or great lassitude. The thirst comes on more gradually than in Form C, and is not, as a rule, so intense. There is a dryness of the mouth and gradual loss of strength. When the patient consults you, you will often find that part of the symptoms date back one or two years. It occurs at almost any age, but more frequently between ten and fifty. Patients are almost always of the laboring classes. It rarely affects persons under twenty-five years of age, but sometimes does occur in children.

There is usually a large amount of urine of normal color, with a high specific gravity, and a large amount of sugar running from 100 to 800 grams in twenty-four hours; acetone and diacetic acid are usually present, especially if the disease has been present for a long time.

With proper and persistent treatment all the symptoms will often entirely disappear except that sugar will still be present in the urine, but possibly in a very much less degree. In a case of glycosuria of this form, if it has been present for any length of time, you will not only find it unadvisable but absolutely impossible to cause the sugar to disappear from the urine, and often patients are injured by taking a too rigid diet prescribed by physicians with the expectation that persistence in the use of a rigid non-starch diet will cause the urine to become sugar free.

Taking this classification as a basis I will speak, more at length this afternoon, on some of the temporary forms of glycosuria which it has been my good fortune to see. By temporary

forms I mean cases where sugar appears in the urine and later disappears entirely independent of diet.

Several times I have seen cases where, because of an inflamed condition of the appendix, it seemed advisable for a surgeon to remove the appendix, but on examination of the urine sugar was found present. If this is a case of temporary glycosuria the sugar does not appear in very large amounts in the twenty-four hour amount of urine. The amount of urine is normal or usually less than normal, and careful questioning will elicit no history of any of the common symptoms of glycosuria preceding the attack of appendicitis.

In these cases there is no necessity for postponing the operation or for making very much change in the diet. The sugar will disappear from the urine usually on the day following the operation, even when the patient is taking a considerable amount of carbohydrate foods. It seems to me that the cause of the sugar is a disturbance in the action of the liver, brought about by an inflammatory condition in the appendix.

I saw one case in particular that very clearly showed this relation. A little girl, about twelve years old, was brought to the hospital with a diagnosed case of acute appendicitis. The routine examination showed sugar present in the urine—about fifteen grams in twenty-four hours. She was passing only about twenty-eight ounces of urine in the twenty-four hours. On account of the presence of sugar and because, in the opinion of the attending surgeon, the appendix symtoms were not severe enough to necessitate an immediate operation, she was simply kept quiet in bed for a few days and had an ice bag applied over the appendix. The inflammation about the appendix soon disappeared and the sugar also disappeared from the urine. She was kept in the hospital for several days, and the day before her return home she was allowed to eat all the candy she wanted,—nearly half a pound. Repeated examinations of the urine during the next twenty-four hours failed to show any sugar present.

About four months later she was again admitted to the hospital with an acute condition in the appendix and the urine showing slight amounts of sugar as previously. The appendix was removed and showed some ulceration and signs of previous inflammatory attacks. The day following the operation the sugar disappeared from the urine and, although she was given the usual diet following the removal of the appendix, sugar did not reappear in the urine while she remained at the hospital, a period of two weeks.

One year afterwards, the girl was hunted up, and admitted to the hospital for two days, during which time she was given all the

candy she cared for, but at no time did the urine show any sugar.

I do not wish to be understood as saying that every case of sugar in a person with an inflamed appendix is only temporary, as it is perfectly possible that a person having one of the permanent forms of glycosuria may have an attack of appendicitis. But it is worth while to remember that a small amount of sugar, with no previous history that would lead us to suspect glycosuria, appearing in a person with an acute attack of appendicitis, is probably only a temporary attack of glycosuria and will disappear when the inflammatory condition of the appendix disappears.

Another condition which may cause sugar to appear temporarily in the urine is a process in the head causing intense headaches. I have had several cases referred to me where the patient had had intense headaches, sometimes more or less constantly, sometimes recurring at intervals of several days or even a week, where the urine was showing a well-marked trace of sugar. In such cases the sugar rarely appears in larger amounts than well-marked traces or perhaps a few grams. It is not at all influenced by the diet. It has a direct bearing on the process which is causing the pain in the head, and disappears as the brain trouble improves. The pain accompanying this form of temporary glycosuria is usually in the back of the head. No doubt it is the same general process that is present when sugar appears following cerebral embolism, cerebral hæmorrhage, etc.

I have seen two cases having rather indefinite mental symptoms where sugar was present in the urine,—in one case up to 30 grams of sugar a day. Diet produced little change in the amount of sugar, the patients gradually became comatose and died. The autopsy, in each case, showed a very marked edema of the brain.

Another temporary form of this disease sometimes occurs during pregnancy. This, in my experience, rarely occurs before the fifth or sixth month. Here the amount of sugar may be comparatively large, in some cases even as much as 50 or 75 grams a day, and, in some cases, the amount of urine passed may be very considerably increased, bearing a marked resemblance to one of the permanent forms of glycosuria. But, in such cases, you will find that the symptoms of increased urine and so forth have been present for only a short time, having begun long after pregnancy began. And you will find that there was no history of increased urine or that any of the ordinary symptoms of glycosuria were present before pregnancy took place.

These cases are not to be confused with those where a slight reduction in the copper test would lead us to think that a small amount of sugar was present. (These cases are usually due to lactose and not to true glucose.)

If the case, from history and examination, seems to be one of glycosuria occurring in a pregnant woman (in distinction from a case of pregnancy occurring in a patient with glycosuria) it is not necessary to restrict the diet to any great extent. If there is any appreciable amount of sugar present, all that is necessary is to see that the patient gets nothing containing sugar and partakes freely of vegetables containing small amounts of starch. The sugar will often disappear before labor, but, if not, will do so within a day or two following. My observation of these cases has led me to the opinion that this form of disturbance originates in the islands of Langherhan rather than in the liver, although I must acknowledge that I have, at present, no pathological data to bear me out in this opinion.

We sometimes find in persons who appear to be perfectly well and show no symptoms which ordinarily accompany sugar in the urine, that, after taking large amounts of sugar or maple syrup, there will be an appreciable amount of sugar showing in the urine, which will entirely disappear on ceasing to use the excess of sugar. This, while only temporary glycosuria, and due to the excessive amount of sugar ingested, should warn us that this particular person's ability to take care of an extra amount of sugar is below normal and the diet should be mildly regulated and instructions given not to over-step the danger-mark. Otherwise, within a few years, we may find them suffering from a permanent form of glycosuria,—Form B.

The question of operations on patients afflicted with glycosuria is important. The question frequently arises whether some certain operation is advisable in the case of a patient showing sugar in the urine. There are several factors that must be taken into consideration before an answer can be given. It is just as foolish to say "Never operate on a patient whose urine contains sugar" as it is to say "I operate on any case where an operation is indicated irrespective of whether the urine contains sugar or not," as I once heard a physician declare. Of course, in this short paper, I can give only a few of the broad rules.

In a case of temporary glycosuria an operation is not contra-indicated because of the presence of sugar in the urine, although it may be so because of the condition which causes the sugar. On the other hand, when, from our study of the case, it seems to us that the condition causing the sugar to appear in the urine is more or less permanent we must study our patient carefully before deciding as to the advisability of operating. In Form C (due to an acute process in the pancreas) any serious operation involving an anæsthetic is contra-indicated except in a most urgent emergency.

In Form D (the chronic type of Form C) no operation should be undertaken except one of absolute necessity. In this form operations on the abdomen or on the upper extremities are more likely to heal than operations on the lower extremities. It is always advisable, in operating on a patient with this form of glycosuria, to give material doses of bicarbonate of soda for at least twenty-four hours before the operation is undertaken, and to continue giving bicarbonate of soda for several days after the operation.

In Form A (where the trouble is in the fourth ventricle) the advisability of an operation depends on the amount of sugar in the urine, and, to a considerable extent, on the physical condition of the patient.

In Form B, type *a* (the most common form of glycosuria and the one found in persons known as "high livers") it is usually safe to undertake an operation if, by placing the patient on a diet strict enough so that the sugar can be entirely eliminated from the urine, acetone will not appear.

There is one fact, however, that should always be remembered. Where the amount of sugar can be greatly reduced, but not entirely eliminated from the urine, operations are usually successful. But where the sugar cannot be reduced below 40 or 60 grams per day operations should be undertaken with the greatest reluctance, with the exception of those on the eye, appendix or kidney. If, when the patient is put on a very strict diet, so that the sugar is reduced or eliminated, acetone appears in the urine—in any amount—any operation except on the eye or in a serious emergency is contra-indicated.

Frequently in these cases, following an operation, the wound appears to have healed up by first intention and everything progresses as it would in a normal person up to the eighth, or sometimes up to the fifteenth day. By that time, the physician frequently thinks that all danger of suppuration is over and, listening to the importunities of the patient, increases the diet, with the result that the wound breaks open and begins to suppurate, without, however, having become inflamed around the edges.

In Form B, type *b* (occurring in persons between fifty and seventy years old) the question of an operation usually comes up on account of dry or moist gangrene of the toe or foot. If the sugar is easily reduced by diet, acetone does not appear and the patient is in good physical condition, an operation may be undertaken, even though the patient may be suffering from general sepsis. But if the patient is in such poor physical condition that there is very little resisting power, any operation, even an emergency one, is nearly always followed by fatal results.

With a patient in good physical condition, and able to stand such a restricted diet that sugar can be eliminated from the urine, a necrosed toe may be amputated with every prospect of healing without having to amputate the whole foot above the ankle. But where a normal person might expect to be using the foot within two weeks, a patient of this sort will perhaps have to wait two months before he can safely use it.

In closing, I wish to add a word of general advice. To be successful in treating your cases of glycosuria, it is absolutely necessary for you to study each individual case in all particulars. You must treat each case according to its own special needs. When a case of sugar in urine comes to you, do not tear out a page marked "diabetes" from a diet book published as an advertisement and hand it to the patient with the advice "Follow that diet." If you do you must not be surprised if, in the course of a year or two, you discover that your patient has either died or become so discouraged that he has drifted away to some other physician.

Owing to an unusual pressure of work our Clinical Editor has been obliged to omit his department for April.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

ARE WE SECTARIANS?

No one can be a sectarian in religion, politics, or medicine who lays no claim to the universality or infallibility of his doctrine. So long as one is ready to admit that his doctrine has holes in it he is not a sectarian. The fact that nearly all of the various denominational churches have long since ceased to believe that their particular doctrine was the only sure method of obtaining an 18-carat harp and crown, and that all those who did not believe just as they did would eventually be digging sulphur crudum, has rendered them unsectarian.

Our definition of a homœopathic physician is a declaration of our creed in medicine, and so long as we have adopted that, and so long as the rank and file of our physicians live up to that definition we are no more sectarians than is the New Englander who prefers his pie for breakfast. So long as the New Englander has other food for breakfast it is evidence that he does not believe in the saving grace of pie alone. He believes that pie helps him better to accomplish his daily tasks, and he prefers it for breakfast, so it will have all day in which to work. If a New Yorker wants his pie at midnight, or does not want it at all, or prefers cake under the name of George Washington pie, the New Englander will not refuse to speak to him or regard him any the less pie-ous.

We are not an *attachment* to medicine; we are not the fifth wheel, the rear red light, nor yet the bad odor behind. We are a part of the engine, and, mark you, our part of the engine has required less tinkering, works more smoothly, and is today more dependable than all the new fangled injectors, automatic starters, gear shifters, and castor-oilers, than have since been added.

Generally speaking, we can say that Modern Scientific Medicine is like a horse, in that it stands upon four legs, so far as the actual treatment of the sick is concerned. Leg No. 1 is the administration of internal medicines. Leg No. 2 is Surgery, and in this is included obstetrics and all mechanical treatment. Leg No. 3 is vaccines and serum therapy. Leg No. 4 is Psycho-therapy, and all that pertains to mental healing. The relation of homœopathy to

scientific medicine is exactly the same which one of the legs of a horse bears to the entire horse. It is not the horse itself, but it is such a part of him that to remove it would cripple the horse and materially interfere with his usefulness.

Even the most enthusiastic homœopaths do not for a moment claim that homœopathy constitutes the *four* legs of modern scientific medicine. They do not claim that it constitutes two legs, but few will go further in their claim for more than one leg. But our friends of the old school are not willing to admit that it constitutes a part of one leg. They want to make it the tail and then cut off said narrative. We do not propose to surrender our ownership in the horse until they have given us full credit for growing that fourth leg.

An old darky preacher said, "Bredder'n, when the las' day shall cum, de Lo'd will gadder all de people 'roun' him and devide dem inter de sheep and de goats, and dere ain't gwine ter be no question who am de sheep 'cause we is de only ones what has de gen'wine wool."

When it comes to internal remedies "there ain't no question who has the gen'wine wool." Modern medicine without homœopathy is a four legged horse with one leg gone. It is scientific in everything except the giving of an internal remedy, and there the science falls down. The homœopathic physician of today is more scientific than any other physician in that he applies the modern scientific principle to all of the recognized methods of cure. But he should get the fact deeply settled in his own mind, and then seek to hammer it deeply into the minds of others that the homœopathic physician of today is first and foremost a physician in the broadest sense of the word. He cannot be a fully useful physician if he is imbued with the idea that he is first a homœopath and second a physician, because homœopathy is only one of four or more parts upon which modern medicine rests. The homœopath who is *exclusively* sectarian has circumscribed very materially his usefulness as a physician.

To recapitulate, homœopathy is more than *related* to modern scientific medicine. It is at least a fourth part of it. The old school has no right whatsoever to lay claim to that one leg of modern scientific medicine, namely, the giving of internal medicine, because of their avowed therapeutic nihilism or acknowledged empiricism. To do away with schools in medicine it is only necessary to make Modern Medicine four-fourths scientific, and this can be done by universally adopting the Law of Similars as a guide in selecting an internal remedy for such diseases as are amenable to internal treatment.

D. G. W.

A LESSON TO BE LEARNED INDIRECTLY FROM DR. RICHARD C. CABOT.

Dr. Richard Cabot has brought out very emphatically how frequently we err in diagnosis. His scholarly paper read before the A. M. A. has attracted the attention of the lay press, which has taken advantage of statistics to discredit the medical profession at large. Moreover, certain conceited physicians have had the indecency to condemn the diagnostic ability of the staff of the Massachusetts General Hospital on the ground of the autopsy findings as compared to the clinical diagnoses of that institution. It may safely be said that in no other hospital in this country has the study of diagnosis been carried on with more zeal and willingness to learn wherein the clinicians err than at the aforesaid institution. Dr. Cabot's paper is the embodiment of much that has been gathered from those invaluable Friday afternoon sessions in the pathological amphitheatre, where, in the open discussion of cases which have come to autopsy many physicians and students have experienced surprises and received lasting impressions from the unveiling of the cold truth by the pathologists. It must be remembered that large general hospitals such as the Massachusetts General and Massachusetts Homœopathic Hospitals receive a large proportion of those obscure cases which so baffle and intimidate the general practitioner as to cause him to rid himself of the responsibility. Consequently the proportion of clear cut and uncomplicated cases are proportionately lower than is met by the average general practitioner. Furthermore, the cases which come to autopsy naturally consist of the worst cases because of their fatal termination; the more perplexing the case the greater is the effort to obtain an autopsy. The excellent records of the Massachusetts General Hospital are in themselves the strongest evidence of the thoroughness with which the cases are examined and studied in view of obtaining a correct diagnosis. To everyone who considers Dr. Cabot's statistics in this light it will be self evident that the author did not intend to imply that the general practitioner makes as many mistakes in his daily practice as is made by experts in difficult cases ending fatally. The man who is dealing with a typical benign malaria, an uncomplicated pneumonia, or any other disease which either responds to treatment or gets well of itself will keep the case for himself to better his own reputation. A very small percentage of these cases ever come to autopsy, and when we consider the frequency with which we make diagnoses of simply infections, rhinitis, laryngitis, bronchitis, or herpes zoster, scarlet fever, measles, chicken-pox, furunculosis, etc., etc., where an autopsy would rarely yield anything of a confirmatory nature we may feel that the medical pro-

fession does diagnosticate correctly in the vast majority of the simple uncomplicated cases in daily practice. As has been said most of these cases if given a proper chance will recover without drugs, and a very few men who practice what they preach in this respect do abstain from drugs—; on the other hand we may say a great many cases get well in spite of large doses of drugs. And here is where we come to the real lesson which Dr. Cabot's work should teach us, for after all a diagnosis is made primarily to guide us in the treatment as well as in making a prognosis. The proper treatment is more what the patient expects and pays for than a reliable prognosis. If the self-limited and simple diseases get well without drugs, and such a large percentage of the obscure and complicated cases are diagnosed incorrectly by experts with the best of facilities, then it were better to abstain entirely from doses sufficiently large to poison when they do not cure. Certainly doses given to counteract a pathological condition which does not exist, or the opposite of which exists, can do no good, and presumably they do do harm. Furthermore under these conditions when a drug like strychnia is given until it benefits the patient or produces the toxic symptoms, as is advocated by certain men on the staff of that hospital, we cannot but shudder at their disregard for the patient's own resisting forces. We would gladly reap the benefit of their diagnostic ability so far as obtaining a prognosis is concerned, but we would—in the light of Dr. Cabot's statistics—hesitate to trust their drug treatment in perplexing cases when they stab with poisoned weapons in the dark, weapons which we are justified in assuming too often injure unoffending organs and disturb functions that, if unmolested, might allow life to continue and even contribute to the restoration of health. To many the homœopathic use of drugs—(in non-poisonous doses) may appear to be useless in these desperate cases, but those of us who have dared to try this method in the face of death, and have seen apparent benefit derived sufficiently often to prompt us to rely on that therapeutic principle which appeals to us more than the drastic and actually less heroic treatment of our colleagues, may pride ourselves with the assurance that even though our simple remedies may not do any good they do not hasten death through an error in diagnosis. The notable contributions to the study of diagnosis which are rendered by the Massachusetts General Hospital should be appreciated by the profession at large, but Dr. Cabot's compilations should fall as a word of warning to the practitioner who considers himself incapable of diagnostic errors, and it should above all bring the attention of all physicians and surgeons who employ large doses of drugs to the old pharmacotherapeutic motto: *primum non nocere;* above all do not injure.

C. W.

FEDERATION OF STATE EXAMINING BOARDS.

Following the suggestion in the March number, we are giving a further report of the Federation of State Examining Boards, which meeting occurred in Chicago, February 25.

There is running through all the papers an undercurrent of thought which seeks to find expression in a uniform standard of medical examination which shall be adopted by all the States of the Union.

What Instruction Ought Medical Colleges to Give in Pharmacology and Therapeutics? (a) The Viewpoint of the State Examiner.

Dr. Walter L. Bierring, Des Moines, Iowa: Considered as an index of the qualifications for medical practice, an examination in pharmacology should constitute one of the best criteria of a candidate's ability to logically apply knowledge acquired in a medical school.

Pharmacology of today is very different from that of fifteen years ago, and I am sure we shall appreciate the marked improvement that has taken place in the teaching of this subject, although there is perhaps still need for pioneer work in applying the results of pharmacology to the problems of the practitioner, which is more or less dependent on the mutual sympathy and coöperation between clinical and laboratory workers.

Pharmacology presents problems that are partly scientific and partly practical, the former being undoubtedly the effective correlation of pharmacology and therapeutics and as to the latter it must be admitted that pharmacology, or pharmaco-dynamics,—of the experimental investigation of the drug action,—has played the part of a powerful and predominating useful ferment in therapeutics, which possibly has not yet reached the proper maximum of its usefulness.

Of equal vital influence to the progress of therapeutics is the standardization of drugs, for in this way unity of knowledge is established that forms an important factor in the licensure examination. In fact, no opportunity is to be omitted to emphasize the close relation that should exist between the pharmacist and the physician.

It may not be apparent to all, but there is a distinct difference in the purpose and mental attitude of the examiner and the candidate for a medical degree, and that which exists between these two individuals in an examination for a certificate of licensure. The one is largely a test of knowledge of the subject in question, and the other pertains to a logical application of this knowledge in the treatment of disease.

The latter injects the human element, in that it presumes an experience in the treatment of patients, which unfortunately is not always the case. I am therefore strongly in favor of the additional hospital year of required medical training, and, furthermore, feel very strongly that the licensure examination should be deferred until this year's practical work has been satisfactorily completed. With this additional experience of closer contact with patients, the candidate will be able to approach the second examination in a much better way.

In the broader use that has been given to the term pharmacology there is included practically all non-surgical or non-operative measures in the treatment of disease. From the original drug treatment it has branched out to include chemo-therapy, organo-therapy, sero-therapy, immuno-therapy, the application of various forms of physical therapy, and perhaps to all this can properly be added that of psycho-therapy.

Keeping in view the real object of the licensure examination to test a candidate's ability for the practice of medicine, less consideration should be given to a knowledge of definition, forms of classification, or of general application of drugs and other remedial agencies, but more to determine his ability to properly apply his knowledge of pharmacology, the purpose to be attained with the different therapeutic measures, and the manner in which the effect of the same is to be interpreted.

The proper application of physical therapy, the underlying principles of

chemo, sero, and immuno-therapy, can readily be incorporated in questions pertaining to applicable disease conditions, thus permitting a wide range in formulating the questions, yet all with some degree of practical aspect, and thus constituting a marked improvement over some of the methods that have prevailed heretofore.

A general discussion followed on a model medical practice act. There was also a general discussion on credentials and the evil of the equivalent. A great many of the members took part in these discussions.

Reciprocity.

Dr. J. M. Baldy, Philadelphia: The method we have adopted has been to take each individual school and judge it on its own merits, irrespective of the fact that it is in a bad environment of faulty State legislation or poorly administered State laws. Having passed on the school and found it competent, as judged by the legal standards of Pennsylvania, as well as by the enforcement of its standards and by its finished products, we register that school and are ready to accept its graduates and endorse the licenses which they have received from any other State in the Union, it matters not what State, provided only that that State will do the same with the graduates of Pennsylvania schools. The Pennsylvania law requires this. We do not even ask that our estimate of Pennsylvania schools be accepted by the other state.

What Instruction Ought Medical Colleges to Give in Pharmacology and Therapeutics?

Dr. Samuel W. Lambert, New York City: There is a great amount of good in the older materia medica and certainly more good than can be found by the laboratory methods of pharmacology, but there is much that is inert and useless, and it is the duty of the school to select the good from the bad and to limit its teaching to the essential drugs. It should be the duty of an examiner to draw out from the student by presenting theoretical therapeutic problems the first mention of any therapeutic measure, or of any drug, and then to hold that student strictly responsible for an accurate knowledge only of the remedies mentioned and suggested by himself. The same rules can be applied to teaching the newer materia medica. The course of instruction in the laboratory of pharmacology should be given by men who have taken the M.D. degree and who have hospital training in clinical medicine. The course should include a study of the effect of small doses of drugs upon animals and also the toxicology of larger doses in the same way. Therapeutics should be considered not as a separate department, but as a part of the department of clinical medicine, and that certain instructors should be delegated to present to the fourth year students serving as clerks, such therapeutic problems as may arise in the course of the ward service.

BOOK REVIEWS.

Fifty Puritan Ancestors, 1628-1660. Genealogical Notes, 1560-1900. By their lineal descendant, Elizabeth Todd Nash. New Haven: Tuttle, Morehouse & Taylor Company. Price, bound in full cloth, $7.00.

While it is the man and not his ancestors whom the present world deals with, yet there is a certain satisfaction in knowing that a few at least of one's ancestors were sufficiently respectable to entitle them to honorable mention in the annals of fame. At the present rate of immigration the tracing of ancestors for the near future American generations will present a puzzle to stagger any genealogist unless he knows the ancestral stock of Europe, Asia, and Africa.

The author of this very interesting volume has compiled and published at private expense an attractive volume of genealogical lore. The compiler is a lineal descendant of every one of the fifty-eight ancestors mentioned,

and it is an interesting and very unusual fact that nearly every one of the colonists either settled originally in Connecticut or came here very soon after arriving in New England.

As many of the readers of the *Gazette* are of Colonial stock, and possibly of this line, we publish for their benefit a list of the fifty ancestors which are fully written up in this very interesting work.

Francis Andrews, Hartford, 1639; Fairfield, 1646.
William Backus, Saybrook, 1637.
George Bartlett, Guilford, before 1648.
John Bishop, Guilford, 1639.
John Bissell, Plymouth, Mass., 1628; Windsor, 1639.
Rev. Adam Blakeman, Stratford, 1639.
Stephen Bradley, New Haven, 1639; Guilford, 1658.
William Buell, Plymouth, Mass., 1630; Windsor, 1636.
Richard Case, Windsor, 1640.
John Charles, Charlestown, Mass.; Branford, Conn., 1660.
Simon Couch, Fairfield, 1640.
Willlam Cornwall, Windsor, 1633; Hartford, 1639; Middletown, 1654.
John Crane, Brookline, Mass., 1633.
Abraham Cruttenden, Guilford, 1639.
Baget Egleston, Dorchester, Mass., 1630; Windsor, 1635.
John Fowler, Boston, Mass., 1637; Milford, 1639.
Edward Griswold, Mass., 1638; Windsor, 1639; Killingworth, 1664.
John Griswold, Kenilworth, Conn., 1664.
John Hand, Lynn, Mass., 1635; South Hampton, L. I., and East Hampton, L. I., 1649.
Thomas Holcomb, Dorchester, Mass., by 1634; Windsor, Conn., 1635; Poquonock, Conn., 1639.
Thomas Hosmer, Cambridge, Mass., 1632; Hartford, Conn., 1636.
George Hubbard, Boston, 1633; Wethersfield, Conn., 1635; Milford, 1643; Guilford, 1648.
John Jordan, Guilford, 1639.
Joseph Kellogg, Farmington, by 1653; Boston, 1659; Hadley, 1662.
Vincent Meigs, New Haven, 1640; Guilford, 1647.
Nathaniel Merrill, Newbury, 1638.
Thomas Nash.
John North, Boston, Mass., 1635; Farmington, 1653.
Thomas North, New Haven, 1644.
John Norton, Branford, 1646.
Thomas Norton, Guilford, 1639.
Edward Pattison, New Haven, 1639.
John Pettibone, Windsor, 1658.
William Phelps, Dorchester, Mass., 1630; Windsor, 1636.
Mary Price, New Haven, 1644.
John Purchase, Hartford, 1639.
John Savage, Hartford, 1639; Middletown, 1650.
John Scranton, Guilford, 1639.
William Seward, Guilford, 1639.
Edmond Sherman, New Haven, 1639.
George Smith, New Haven, 1639.
Giles Smith, Hartford, 1639.
Thomas Smith, Fairfield; Guilford, 1652; Killingworth, 1663.
John Stevens, New Haven; Guilford, 1641.
Rev. Samuel Stone, Boston, 1633; Hartford, 1636.
Thomas Stoughton, Dorchester, 1630; Windsor, 1640.
John Talcott, Braintree, Eng.
Stephen Terry, Dorchester, 1630; Windsor, 1637.
Christopher Todd, New Haven, 1639.
Thomas Tracy, Salem, 1636.
Andrew Ward, Watertown, 1634; Wethersfield, 1634; Stamford, 1640.
John Warner, Farmington, Conn., 1645.

John Watson, Hartford, 1644
Moses Wheeler, New Haven, 1638; Stratford, 1648.
John Wilcox, Hartford, 1636.
William Wilcoxson, Mass., 1635; Stratford, Conn., 1639.
Simon Willard, Cambridge, 1634; Concord, 1635; Lancaster, 1660.
Benjamin Wright, Guilford, 1645.

A Treatise on the Disease of Women. For Students and Practitioners. By Palmer Findley, B.S., M.D., Professor of Gynecology, College of Medicine, State University of Nebraska; Gynecologist to the Clarkson Memorial Hospital and Douglas County Hospital; Fellow of the American Gynecological Society; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the Chicago Gynecological Society. Octavo, 954 pages, illustrated with 632 engravings in the text and 38 plates in colors and monochrome. Cloth, $6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

This new work offers a complete exposition of the subject of diseases of women, and brings out many points of view not generally emphasized in books on gynecology. A very important feature is the full discussion given to conservative methods of treatment, such as douches, baths, exercise, massage, diet, dress and tampons, which rarely receive the consideration which their importance merits, either in books or in actual practice.

While there are certain standard methods of treating certain diseases, yet the man of an investigating mind and a progressive spirit always welcomes a new book in medicine or surgery however much there may have been written on the same subject, provided always the writer shows he is a master in the subject chosen. On that basis the work of Dr. Findley has a distinct place.

Had the author done nothing more than to emphasize the modern treatment of certain pelvic disorders through exercises he would have made a notable contribution to the work of gynecology. The book abounds in many of the little details which an advanced operator thinks anyone should know, but which the beginner does not know and greatly needs to know.

Surgery of the Upper Abdomen. In two volumes. By John B. Deaver, M.D., Sc.D., LL.D., Professor of the Practice of Surgery in the University of Pennsylvania, Surgeon-in-chief to the German Hospital, and Surgeon to the University Hospital; and Astley Paston Cooper Ashhurst, A.B., M.D., Instructor in Surgery in the University of Pennsylvania, and Associate Surgeon to the Episcopal Hospital, Philadelphia. Volume II.—Surgery of the Gall-Bladder, Liver, Pancreas and Spleen, with 52 illustrations. Philadelphia, P. Blakiston's Sons & Co., 1012 Walnut St., 1914. Price $5.00 net.

The reader can always be sure that anything which Dr. Deaver puts his mind and his pen to will not only be well done but the result will be helpful and instructive to one who is interested in the same line.

This volume includes a very comprehensive description of the surgery of the gall-bladder, liver, pancreas, and spleen. It is well illustrated and withal a thoroughly comprehensive work. The first volume of this work was published four years ago, and covered surgery of the stomach and duodenum; and the second volume is a supplement thereto, but with the addition of the above-mentioned organs. Not only has the author given us his personal experience in this particular line of surgery, but he has supplemented it with that of some of the best authorities of the day.

The chapter on Cyst of the Pancreas is illuminating on a subject concerning which comparatively little has been written. The book is an example of the best art in the bookmakers' field.

Immunity. Methods of Diagnosis and Therapy and Their Practical Application. By Dr. Julius Citron, Assistant at the University Clinic of Berlin, II Medical Division. Translated from the German and edited by A. L. Garbat, M.D., Assistant Pathologist and Adjunct Visiting Physician, German Hospital, New York. Second edition, revised and en-

larged. 30 illustrations, 2 colored plates and 8 charts. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut St. Price, $3.50 net.

The first edition of this little volume was exhausted within two years after its appearance. That fact in itself is suggestive of the widefelt need of such a volume.

The study of immunity has ceased to be one of merely theoretical interest and has now taken its place in the scientific world as a subject of the utmost importance. Immunity is no longer a theory, but a fact. The chapter on Vaccines has been revised and elaborated to conform more closely to the most recently advocated methods of Sir A. E. Wright. To give an idea of the scope of the work it is only necessary to mention some of the subjects considered. These are:

Definitions of Immunity and Antibody; the law of specificity; Immunization with living and dead virus; Aggress in experiments; Definition of toxin; bacterial precipitation; passive immunity, and chemo-therapy.

Practical Sanitation. A Handbook for Health Officers and Practitioners of Medicine. By Fletcher Gardner, M.D., Captain Medical Corps, Indiana National Guard; First Lieutenant Medical Reserve Corps, United States Army; Health Commissioner of Monroe County, Indiana; and James Parsons Simonds, B.A., M.D., Professor of Preventive Medicine and Bacteriology, Medical Department, University of Texas; lately Superintendent, Indiana State Laboratory of Hygiene. Illustrated. St. Louis, C. V. Mosby Company, 1914. Price, $4.00.

As an evidence of the increasing demand for instruction upon matters of public health, for health officers and practitioners, the work of Dr. Simonds is a timely publication. Public health is today a very important branch of medicine, so important in fact, that no man feels that he can be thoroughly useful in that line unless he has made a special study of present day sanitation. This publication seems to answer just such a demand.

The volume gives specific instruction in the organization of the sanitary service, method of keeping local records and statistical facts; manner of disposing of the dead; school inspection; how to conduct campaigns against the fly, the mosquito, and the rat. The study of food and food products has been given careful consideration, bringing such information up to present-day methods of inspection and control.

MEDICAL JOURNAL REVIEWS.

The Medical Advance, January, 1914.

1. *Basic Materia Medica.* E. J. Fraser, M.D.

Being a presentation of the theory of vibration as it supposedly pertains to pathology and therapeutics.

[Reviewer's note.] The article is marred by several radical and ill-considered statements made in the course of the author's preliminary remarks. Few can sympathize with his characterization of the Anti-tuberculosis League as a "tin-horn movement."

Fraser states that "sanitary science has been one of the chief cornerstones of Homœopathy from its very beginning, and today we stand in the foremost ranks." He also says that if everybody enjoyed the benefits of the homœopathic system of medicine and sanitary science, "there would be no necessity for excluding tubercular (*sic*) patients (*i.e.*, patients resembling small knob-like excrescences) from our midst." He boasts of sanitary science, and at the same time tries to offset the efforts of that science to remove the chief cause of the spread of tuberculosis, which is prolonged daily contact with tuberculous patients. Also "when people come to us —in the early stages of infection we promptly cure them as a matter of course." This in itself is no unanswerable argument for homœopathy, for nearly as many will recover without medicine if they receive faithful hygienic treatment.

2. *Modalities and Physiological Action.* C. P. Bryant, M.D.

Bryant touches on several remedies and attempts to explain modalities and characteristics in terms of the pathologic conditions resulting from poisoning with drugs. For instance, the "thirst" of Bryonia for large quantities, "is probably due to the effusion into the serous sacs, which causes increased demand for water.

[Reviewer's note.] In discussing apis, which also causes œdema, dropsy and œdematous inflammation of serous membranes, the author fails to give any explanation of the *thirstlessness* characteristic of the apis patient. The "selective" action of different remedies for the right or left sides of the body is glibly accounted for by *saying* that the right side of the body is electro-negative, the left, electro-positive; hence the right side would be influenced by electro-positive drugs.

The study of this subject is a very profitable one.

3. *Sugar.* J. B. S. King, M.D.
4. *Homœopathic Results in India.* A. T. Paul, M.D.

The use of lycopodium and conium in diabetic coma.

5. *Direction of Head Pains.* Dr. Ide, Stettin.

The Medical Advance, February, 1914.

1. *Mercurial Poisoning and its Prevention.* E. N. Chaney, M.D.
2. *A Study of Chronic Nervous Diseases.* C. P. Bryant, M.D.
3. *A Contrast.*
4. *Indurations and Cancer.* J. E. Gilman, M.D.
5. *Instructive and Clinical Cases.*
6. *The Phosphorus Type.* Dr. Pierre D'Espiney.

S. B. H.

The Eclectic Medical Journal, January, 1914.

1. *Neuralgia.* T. D. Adlerman, A.B., M.D.
2. *Climate of the North-Pacific Coast.* H. L. Henderson, M.D.
3. *Bryonia.* J. Fearn, M.D.
4. *Antitoxins.* A. F. Stephens, M.D.
5. *Draining and Medicating the Seminal Vesicles.* A. W. Nelson, M.D.
6. *Acute Rhinitis.* S. E. Eagon.
7. *Treatment of Syphilis.* N. M. Dewees, M.D.
8. *Cerebro-Spinal Meningitis.* C. Otto, M.D.
9. *Experiences in Obstetrics.* H. M. Powers, M.D.

The Eclectic Medical Journal, February, 1914.

1. *Tuberculosis.* C. Woodward, M.D.
2. *Eclectic Examining Board Representation.* J. K. Scudder, M.D.
3. *Digitalis.* J. Fearn, M.D.
4. *Lobar Pneumonia.* C. W. Holtzmuller, M.D.
5. *Simple Melancholia.* W. E. Postle, M.D.
6. *Calomel.* F. Stir-Smith, M.D.
7. *Acute Anterior Poliomyelitis.* A. W. Hobby, M.D.

The Eclectic Medical Journal, March, 1914.

1. *Quality Versus Quantity.* J. V. Lloyd, Phar.M.

The condition in which a drug exists, is frequently of more importance than the amount of drugs.

2. *State Board of Regulations.* J. K. Scudder, M.D., A.M.
3. *Cactus.* J. Fearn, M.D.
4. *Ramblings on the Puerperium.* H. T. Webster, M.D.
5. *The Preparation of Pathological Specimens.* F. B. Grosvenor, M.D.
6. *Asthma.* C. D. R. Kirk, M.D.
7. *Varicose Ulcer.* C. L. Harding, M.D.
8. *Acute Cystitis.* H. W. Felter, M.D.

S. B. H.

The Journal of the American Institute of Homœopathy, January, 1914.

1. *A Case Illustrating the Principles and Efficacy of Homœopathy.* J. B. Brown, M.D.

The case, which was relieved by lycopodium 200, was one of gonorrhœal arthritis. In the rather heated discussion which follows, Dr. Krauss, of Boston, very properly submits that tests of cure should be applied before we are justified in saying that a case is "cured." The other disputants, however, hold stubbornly to the idea that the absence of subjective symptoms constitutes a cure.

2. *Potent Factors, Some of the Newer and More Practical Methods Used in Diagnosis.* C. E. Sawyer, M. D.

Sawyer briefly discusses blood examinations, uranalyses, blood pressure examinations, tuberculin and Wassermann reactions and their value in helping us ascertain the cause of chronic invalidism.

3. *Government Aid in Drug Proving.* C. A. Wherry, M.D.
4. *High Frequency in the Treatment of Hay Fever.* L. J. Brown, M.D.
5. *Hydrotherapeutic Adjuvants in Pneumonia.* W. H. Dieffenbach, M.D.

Sectional ablutions with cold water (60°-65° F.) every four hours. A vest of linen cloth immersed in cold water is to be worn between ablutions. When the cloths become warm and dry usually every thirty minutes, remoisten with drippings of cold water from a sponge. Use alternate hot and cold compresses over the bronchial area when coughing spells are persistent and expectoration difficult. Pick and Nesper are quoted as having treated respectively 223 and 100 cases of pneumonia in this manner with a mortality of about 2 per cent.

6. *An Atypical Case of Pneumonia with Treatment.* E. B. Swerdfeger, M.D.
7. *Universal Medical Inspection in Our Public Schools.* C. R. Armstrong, M.D.

The Journal of the American Institute of Homœopathy, February, 1914.

1. *Some Neglected Points in the Hygiene of Adolescence Together with Instruction of the Prospective Mother.* W. G. Crump, M.D.
2. *Essentials in the Successful Practice of Obstetrics.* G. Fitzpatrick, M.D.

The author discusses the mental attitude of the doctor; the need of his being interested in home life; the necessity of regarding the pregnant woman as a pathologic woman,—the reviewer would term her only potentially pathologic;—and the fact that obstetrics is surgery. He gives as the three physical factors in labor; the size of the pelvis and the fœtal head as determined by the pelvimeter; the muscular power of the patient; and the patient's nervous attitude. He emphasizes the need of fitness and equipment.

3. *The Care of the Pregnant Woman.* G. A. Huntoon, M.D.
4. *The Care of the Patient during the Puerperium.* R. M. Richards, M.D.

Long and profitable discussions follow each of the above four papers.

5. *Pellagra.* A. L. Smethers, M.D.
6. *Nitrous Oxide and Oxygen Anæsthesia.* R. P. Miller, B.S., M.D.
7. *Discussion on Dr. Bailey's Paper, Conquering Pain.*

This paper was published in the August, 1913, Journal of American Institute of Homœopathy, p. 138, and cases were reported to illustrate how frequently the use of tho-rad-x as a remedy is accompanied by relief from pain. S. B. H.

The British Homœopathic Journal, February, 1914.

1. *Some Recent Cases of Interest.* R. M. LeHunte Cooper, M.D., B.S.

Raynaud's Disease treated successfully with Secale 30. Chronic Carbolic Acid Poisoning from nasal douche solution and a dentifrice both of which contained phenol.

2. *Gall-stones.* T. M. Neatby, M.A., M.D.

This article is concluded from the January number and takes up diagnosis and treatment in a very thorough manner.

3. *In Memoriam.—Professor Tommaso Cigliano.*

By Dr. Archimede Cigliano.

Translated from the Italian by A. S. Alexander, M.D. S. B. H.

The Homœopathic World, February, 1914.

1. *An Abridged Report of the Discussion at the Liverpool Congress on the Importance of Pathology in the Treatment of the Patient.*
2. *Visit of the International Homœopathic Council's Envoy to St. Petersburg.* E. P. Hoyle, M.D.
3. *Chronic Eczema Cured by Isotonic Sea-water Injections.* A. G. Sandberg, M.D.

The case was one of severe eczema rubrum of the face, neck, hands, arms and legs. It was over twelve years in duration. After four months' treatment consisting of injections of from 20 to 200 c.c. of isotonic sea-water, in conjunction with rhus venenata 200, "the irritation had entirely ceased and the arms, neck and face were perfectly clear." S. B. H.

The Medical Century, February, 1914.

1. *An Important Problem of the Age: The Care and Treatment of Mental and Nervous Diseases.* A. J. Givens, M.D., LL.D.

Occupational treatment is one of the most important measures. "Mere custodial care favors mental deterioration. Aimless inactivity is extremely detrimental even to the sane. It is highly desirable that occupation outdoors should be more frequently provided for women patients. Statistics for the past ten years show that the death rate from tuberculosis in state hospitals has been more than twice as great for women than for men."

2. *Isotonic Sea-water in Some Cancer Cases.* J. B. Griffin, M.D.

Griffin cites four cases, in three of which the diagnosis was confirmed by microscopic examination. The dosage ranged from 40 c.c. to 100 c.c. injected, usually, every second or third day. After from ten to fourteen weeks the neoplasm had entirely disappeared and the patient was well, in three of the cases.

3. *Gall-stones and Digestive Disturbances.* A. E. Gue, M.D., and H. L. Lott, M.D.
4. *The Mentality of the Halogens.* G. E. Dieust, M.D.
5. *Lichen Urticatus. Its Manifestations and Treatment with Appended Homœopathic Descriptive Remedies.* R. Bernstein, M.D.
6. *Emergency Surgery.* S. R. Stone, M.D. S. B. H.

SOCIETIES.

Boston Section of the Mass. Homœopathic Medical Society.

The monthly meeting of the Boston District, Massachusetts Homœopathic Medical Society was held Thursday evening, March 5, in the lecture hall of the Evans Memorial building, East Concord Street.

In the absence of the President, Dr. O. R. Chadwell, Dr. S. H. Blodgett, Vice-President, was in the chair.

After the reading of the records of the previous meeting and the election of Dr. Martin W. Warren to membership, a very interesting case of Chyluria was shown, with microscopic findings and notes by Dr. Blodgett's laboratory assistant, Mr. Overholser of the Medical School.

Following this case, the regular program for the evening was presented, as follows:

When to Remove the Tonsils. By N. H. Houghton, M.D.

Adenoids and Aural Disease. By Harold L. Babcock, M.D.

Discussion on these papers was taken part in by Drs. Frank R. Sedgley, Benjamin T. Loring, H. P. Bellows, Conrad Wesselhoeft, 2nd, and George A. Suffa.

A social half-hour, with light refreshments, closed the evening's program.

International Hahnemannian Association.

The next meeting of the International Hahnemannian Association will be held at The Holmhurst, Atlantic City, New Jersey, on June 25, 26, 27.

Atlantic City was selected on the result of a post card vote of the members as being the preference of the largest number.

The American Medical Association is to meet at the same place for the whole week beginning June 22nd.

The sessions of the American Institute of Homœopathy will be held in the same city during the following week, beginning June 29th.

It is a most unusual coincidence that all of these national societies should have chosen Atlantic City as their meeting place for this year and it will give an opportunity for much interchange of thought if the members are able to arrange to attend some of the sessions of the different bodies.

It should also act as a spur to especial achievement on the part of the members of the I. H. A. who will be quite likely to have more than the usual numbers of visitors and will want to make as good a showing as possible.

The President, Dr. Franklin Powel, of Chester, Pennsylvania, has appointed the following members as chairmen of Bureaus:

Dr. G. B. Stearns, New York City, Philosophy.
Dr. R. E. S. Hayes, Waterbury, Connecticut, Materia Medica.
Dr. T. G. Sloan, South Manchester, Connecticut, Clinical Medicine.
Dr. J. W. Krichbaum, Upper Montclair, New Jersey, Surgery.
Dr. V. A. Hoard, Rochester, New York, Obstetrics.

Members are urged to communicate with Chairmen of Bureaus as early as possible in order that all work may be planned systematically in advance.

Homœopathic Medical Society of the County of Kings.

The 472d regular meeting of the Homœopathic Medical Society of the County of Kings was held on February 24, at the Medical Library Building, Brooklyn. Dr. F. Glynn Young, New York Homœopathic Medical College, '06, was elected a member of the Society. A communication was received from the Homœopathic Medical Society of the County of New York agreeing to a renewal of the plan of last year whereby there was an interchange of meetings, the visiting Society furnishing the papers. The New York Society will visit Brooklyn in May and the Brooklyn Society will visit New York in June. Under the Bureau of Homœopathy and Materia Medica Dr. R. I. Lloyd read a paper on Kali Bichromicum in Quiet Iritis, which was discussed by Dr. Schenck. Dr. F. H. Lutze read papers on Phosphoric Acid in Diarrhœa, Phytolacca in Diarrhœa of Infancy, Arnica in Rheumatism, Belladonna and Calcarea Carbonica in Spinal Paralysis. These papers were discussed by Dr. W. W. Blackman, Dr. H. B. Minton, Dr. Lloyd, and Dr. Schenck. Under the Bureau of Surgery Dr. Anson H. Bingham of New York read a paper on Orthopædics in General Practice. Dr. Roy Upham read a paper on diagnosis by the X-ray screen showing radiographic pictures by means of the stereopticon in cases of Eventration of the Diaphragm, Retrocardiac Mediastinal Tumor, and Diagnosis of Forms of Intestinal Stasis. Dr. Schenck read a letter which had been prepared by the Committee of the American Institute of Homœopathy, of which Dr. Copeland is Chairman, to be sent to the President of the American Medical Association, Dr. Witherspoon, proposing certain remedies to be used to prove the law of similars.

L. D. Broughton, Secretary.

INTERNATIONAL HOMŒOPATHIC COUNCIL.

The next Annual meeting of the International Homœopathic Council will be held at The Hague, August 6-7-8th, 1914. The aim of the Council is to safeguard interests and advise with regard to policies. It is the permanent representative of the Quinquennial International Homœopathic Congress and its authority was conferred upon it by the International Congress of 1911.

Officers: President, Dr. George Burford; 1st Vice-President, Dr. Theophile Mende-Ernst; 2nd Vice-President, Dr. Leon Brasol; Secretary and Treasurer, Dr. E. Petrie Hoyle; Associate Secretary, Dr. M. F. Kranz-

Busch and also Dr. A. E. Hawkes. J. Preston Sutherland, M.D., Dean of Boston University School of Medicine, U. S. A., Permanent Secretary of the International Homœopathic Congress, is ex-officio a member of this Executive. (All these Offices are Honorary Appointments)

It is the earnest wish of the whole body of our Dutch Colleagues that many Delegates and Visitors avail themselves of this Assembly, which will undoubtedly stimulate Homœopathy throughout the whole of Holland, in proportion to the importance of the meeting. This in a measure lies in hands of every homœopathic physician to help.

The status of our school in the weaker sections of "World-Wide Homœopathy" is a constant and insistent appeal to the stronger sections of Homœopathy, to give every available stimulus to progress.

The Executive feel that notable advance has been made in the current year; how much has been done will be told and reviewed in the Assembly at "The Hague." Communications have come to us from many countries that this international work is making its mark on Homœopathy! The delegates may rest assured that they are making history for our Cause! and therefore we invite your Society to send a delegate or delegates, in proportion to the above enumeration, and that some delegates will be forthcoming who will make some sacrifice, if necessary, in order to attend.

There are several grave questions to be considered and plans to be opened for widening the sphere of action of Homœopathy. This Executive therefore invites the co-operation of "all the talents" of Homœopathy to aid in the "uplift" of Homœopathy, feeling sure that what has been accomplished in the past year will justify the time given to this Council work, and that which may be the outcome of the coming Assembly will repay all efforts and sacrifice.

In the name of our "common cause" we pray your earnest and quick action, and reply. Yours fraternally,

(Signed) George Burford, President. E. Petrie Hoyle, Hon: Secty.

THE GREAT PRACTICAL ADVANCE IN SEROTHERAPY AND IMMUNIZATION BY MEANS OF SEROBACTERINS

Serobacterins are sensitized bacterial vaccines or suspensions of killed sensitized bacteria. In the language of the laboratory, they are produced by saturating bacteria with the specific antibodes found in the serum of an immunized animal, removing the excess of serum by centrifuging and suspending the bacteria in a saline solution. According to the trustworthy reports of bacteriologists and clinicians, they are destined in great measure to supplant other means of immunizing against and treatment of many infectious diseases.

The method of sensitizing is, in brief, the treatment of killed bacteria with specific immune serum whereby the bacteria unite with the immune bodies present in the serum, so that upon injection the combination is ready for immediate attack by the "complement" in the patient's blood.

There is thus secured a great gain of time over the older methods of bacterial therapy, and whether in prevention or treatment this immediacy is of the utmost value. In a few days, for instance, by typho-serobacterin, the practitioner may now secure for his patient immunity against typhoid as formerly in nearly a month with the old typhoid vaccine.

Other advantages are that there is no local irritation at site of injection and little or no lassitude or sickness. More important, still, is the fact that there is no negative phase. The size of the doses may also be greatly increased, even quadrupled, thus assuring rapidity of production and strength of immunity.

Of interest in this connection are the laboratory results of Theobald Smith and the work of Von Behring in combining diphtheria toxin and antitoxin for immunization against diphtheria. By making mixtures containing varying amounts of toxin and antitoxin they were able to secure any degree

of immunity—from a short passive immunity due to the serum, to an active immunity of long duration, resulting from the action of toxin.

To the foregoing advantages of the uses of serobacterins it may be added that in very late stages of the disease, when the bacterial vaccines and even serum treatment is ineffective, successful results are sometimes obtained and life is saved.

Beseredka, of the Pasteur Institute, authoritatively summarizes the matter by saying:—

> "Whatever the nature of the virus, whether the microbe of plague, dysentery, cholera or typhoid fever, or whether the virus of rabies or the toxin of diphtheria, whether the microbes are killed or living, sensitization confers upon them properties which convert them into vaccines of the first order, possessing an action which is sure, rapid, inoffensive and durable."

The results of the clinical use of serobacterins in actual practice give, of course, the final and convincing test. Of such reports one notices that of Gordon, on the successful use of strepto-serobacterin (sensitized streptococcus vaccine) in erysipelas, emphasizing the fact that when the treatment did no good it did not do the slightest harm; that prophylactically in the face of epidemics it should have a great future; that in hospitals the resistance of the patients may be raised to bacillus coli, streptococcus pyogenes, or the pneumococcus before operations on the alimentary tract or other infected area; for preventing secondary infections and possibly in cases of difficult labor. He says that in cases already infected, the evidence shows that in a proportion of instances it is possible by this method to promote materially the patient's recovery. "By administering a sensitized vaccine to these patients, we appear to bring into action available reserves in that complex and still incompletely defined entity, the patient's specific resistance."

As to the dosage, Gordon, in erysipelas, gave as the first dose 500 million; 24 hours later the second dose was 1,000 million; the third, in 24 hours, was 2,000 million.

Broughton-Alcock found that in acute and chronic gonorrheal urethritis the injections were of little value, but that good results were almost invariable in gonorrheal orchitis, epididymitis, arthritis and periarthritis, tenosynovitis, acne, furunculosis, impetigo, seborrheic eczema.

Boinet found that the good results in typhoid fever were in accordance with its use nearer the beginning of the infection, diminishing the gravity and shortening the duration of the disease.

In gonorrhea Cruveilhier found that in all cases the duration of the disease was sensibly modified; in acute gonorrheal rheumatism he reports a number of cures. In chronic gonorrheal rheumatism, and metritis favorable results are reported.

Speaking generally, serobacterins give active immunity within 24 hours after the first injection, with marked improvement in the patient's condition. They produce no opsonic or clinical negative phase—and, therefore, will do away with this cause of solicitude on the part of physicians using the ordinary bacterial vaccines in the past.

To insure that the serobacterin is properly sensitized careful complement fixation tests are carried out to ascertain the extent of antibody absorption by the bacteria. As a further safeguard guinea-pigs are injected and the action of the serobacterin is followed by means of a series of tests made with the blood serum of the treated animal.

Great care is advisable in the selection of a sensitized vaccine, or serobacterin—the product only of that manufacturer should be chosen of the highest professional character.

A complete review of the Literature on Serobacterins appears in the Mulford Digest for December, and we suggest that those who have not received a copy of this issue request one, to be read and kept on file for future reference.

DR. EUGENE H. PORTER, LATE HEALTH COMMISSIONER OF NEW YORK STATE.

"American Medicine" for January contained the following appreciation of the fine work done by Dr. Porter during his tenure of office as Health Commissioner. It is a thousand shames that politics can put such a man out of office.—

A special word concerning Dr. Porter's services would seem to be called for, as he is about to turn over the office of Health Commissioner to his successor. Appointed by Governor Higgins, Dr. Porter's scientific and administrative abilities have been so marked that Governors Hughes, Dix and Sulzer were glad to retain him year after year. When Governor Sulzer came into office we seized the occasion to point out the splendid work Dr. Porter had been doing and the benefits that had accrued to the State. Dr. Porter has been not only a faithful public servant, but a very able one. His tenure of office extending over the administration of four governors, has been marked by notable progress and accomplishment. Without the slightest exaggeration it can be stated that under Dr. Porter's direction the health department of the Empire State has attained a degree of efficiency that has been equalled by few other states in the Union and surpassed by none. As Dr. Porter passes out of office once again is emphasized the grave fault of our official system in the United States that many European countries have had the wisdom to avoid. In these foreign states and cities the training, experience and efficiency of certain officials, such as health officers, are considered public assets. The longer an official who is efficient holds office, the more useful he is considered. Under no consideration would the people countenance dismissal of a good and capable official who has become thoroughly trained in the duties of his office, and tolerate his being supplanted by perhaps a totally untrained man, for no other reason than to honor some prominent citizen, give some one else "his turn in the office," or discharge a political obligation. Such a course would be looked on by the people as a flagrant betrayal of their interests—and they would be pretty nearly right. The desire of the founders of our national, state and municipal governments to avoid the development of classes was responsible undoubtedly for our system of rotation in office. Possibly there is much to commend in such methods. But there is a great deal to be said on the other side when we come to consider officials whose value in the public service depends on special aptitude, long training and the acquisition of special experience. Since this training and experience are obtained usually at public expense, this fact alone, to say nothing of the practical advantages, would make the retention of such officials simply thrifty common sense. All of which brings us to the conclusion that if the State lets Dr. Porter retire to private life and fails to make some arrangement whereby his knowledge, training and experience can be utilized for the public welfare, it will be a sad reflection on the judgment as well as genuine interest in the health of the people of those at the helm. There are not so many men with the information gained from eight years' successful administration of the health department of a State like New York. that we can afford to lose their services, even if we retain them in only an advisory capacity.

A BRIEF ADDRESS (IN RUSSIAN) TO THE STUDENTS OF BOSTON UNIVERSITY SCHOOL OF MEDICINE.

By Dr. Nicolaj Serkoff, of Moscow.

(Abraham Colmes, Class of 1915, Interpreter.)

To visit America, the land in which the teachings of Hahnemann have received worthy appreciation and have grown in strength and power with the decades, has been my dream for many years. Now the dream has come to realization.

I am happy to find myself among you, colleagues and believers in a

common ideal. The hearty welcome and courteous attention shown to me at your School, both by professors and by students, will always remain in my memory, and the days spent among you have been of the happiest of my life.

It has been a pleasure to me to observe the work as it has been performed by instructors and students. Today, on leaving you, I beg of you to accept hearty greetings from me and from the homœopathic physicians of Russia. The cause of Hahnemann is our common interest, dear to us all. So let us work together in good will and friendship in all parts of the world that through our combined efforts we may erect a temple of medical science. Not for the sake of personal gain, not for the sake of glory, but in the name of duty and of love for the sick let us work together.

In expressing my deep respect for my older colleagues composing the Faculty of this School of Medicine I can only wish them strength and success in their noble work of defending the truth.

To you, students, my younger friends, I wish to say a few more words.—Soon the doors which give access to the broad field of medical practice will open before you. To you, young doctors, the hands of the suffering will be stretched out; the imploring eyes of the unfortunate will be directed towards you. From you, help and mercy will be expected, and then, at the bedside of the sick, you will clearly understand the value of Hahnemann's teachings. The Law of Similars, this key to medicinal therapeutics, will be your constant and faithful friend, and "Materia Medica Pura" the inexhaustible source of happiness to the sick. You will not regret the hours spent in learning, but the burden of sufferings is variable, and firmness of character is not alike in all. There will be moments of uncertainty. You may be ready to throw yourselves into the labyrinth of empiricism, and the enemies of homœopathy will be happy to reward you, followers of these tortuous paths, with mischievous laughter.

Yet, be firm in these moments of doubt! Call on your nearest colleague, and with him solve, to the best of your ability, the complicated question of remedy selection. Always remember that through like experiences of discouragement and despair the best of your teachers have had to pass. Firmness in moments of doubt is the everlasting foundation of medical experience. Follow this, and hold on high, throughout your country, the flag of homœopathy.

Help each other, and openly seek to spread abroad the truth.

Be merciful and love the sick.

I am confident that the names of many of you here present will adorn the pages of the future history of medical science.

And so, colleagues, always forward, with steadfast eye fixed on the high and holy ideals to which our profession pledges us!

May God help you!

PERSONAL AND GENERAL ITEMS.

Drs. Edwin A. and Edith Leavitt Clarke (B.U.S.M. 1885) formerly of Westboro, Massachusetts, but for a considerable number of years in the West, are located at Akron, Colorado, having removed there from Canon City. Dr. Edwin Clarke is secretary of the Akron Chamber of Commerce and a member of the Educational Committee.

Dr. Sarah Adleman, class of 1910 B.U.S.M., has been appointed assistant physician at the Hospital for the Insane, Skuylkill Haven, Pennsylyania.

The Philadelphia Academy of Surgery offers the Samuel D. Gross Prize of $1,500 for 1915 for the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens. The essays, which must be written by a single author in the English language, should be sent

to the Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22nd St., Philadelphia, on or before January 1, 1915.

For further information regarding this interesting matter, apply to the Committee at above address.

Dr. Gilbert M. Mason, B. U. S. M. '98, for several years demonstrator of Anatomy at the School, has opened an office at 520 Beacon St., Boston, for the practice of his specialty in orthopædics.

FOR SALE—From the library of the late Dr. Edward R. Miller, a set of *Gentry's Concordance Repertory* in excellent condition; price $9. Can be seen at Boston University School of Medicine, 80 East Concord St., Boston. Address "L.G.K." as above.

FOR SALE—A long established practice in a California city with an ideal all-year-round climate. No snow and no ice. Will give personal introduction and thoroughly established successor. No real estate; a bargain for practically the value of the office equipment. Reciprocity. Address "W. H. A.," care New England Medical Gazette, 80 East Concord St., Boston, Mass.

OPEN LETTER FROM THE NEW ENGLAND HAHNEMANNIAN ASSOCIATION.

The New England Hahnemann Association was founded in the latter part of 1894 and was incorporated April 14, 1896, with the object of assisting the Medical School of Boston University, and this year rounds out twenty years of its existence.

During those years it has raised and turned over to the School $14,500.00, which money has come to the School in its times of greatest need.

For several years the Hahnemann Association also paid from its own funds a librarian for the School library. This was one of the greatest aids ever received by the School, for the library, up to that time, on account of the lack of necessary funds, had been very inaccessible to the students. Dr. Lovering entirely re-arranged the books, brought the cataloging up to date and, by daily personal attention, made the library of enormous value to the students and also to many physicians. The Association has also, in several instances, helped worthy students with scholarships.

Another very useful purpose served by the Association has been the bringing together at some sort of public entertainment every few years of the friends of the School, and the placing of the School's needs before the public.

During the past few years, owing to activities in other lines by friends of the School, this society has not felt it advisable to undertake any large enterprise.

The Society, when it began, was composed principally of physicians, patients of the physicians and other friends of the School, who were either contributing members, sending two dollars each year, or life members of the society, making single payments of twenty-five dollars.

We wish very much now to increase the society's membership thus increasing the amount of good that can be accomplished for the School. This seems a fitting time for us to get together and see if we cannot very materially enlarge the membership before the twentieth anniversary of its incorporation.

Are you willing to help us in either of the following ways: by joining the society yourself, if not already a member, or by sending us the names of persons to whom we may write (using your name) asking them to join the society?

Stephen H. Blodgett, M.D.
George R. Southwick, M.D. } Committee.
John P. Sutherland, M.D.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX MAY, 1914 No. 5

ORIGINAL COMMUNICATIONS.

SOME SUGGESTIONS FOR IMPROVING MILK FOR THE MUNICIPAL SUPPLY.*

By Stephen H. Blodgett, M.D., Boston Mass.

I suppose it would be out of order to begin a talk on the subject of milk without stating that milk is the ideal food for infants and invalids. In all fairness perhaps I ought to add that it is also an ideal carrier and breeding place for many kinds of germs.

I shall consider only one very small part of the milk problem, namely, that concerning the purity and freshness of milk, with a possible way of maintaining and improving these two necessary qualities.

Pure milk, fresh and promptly delivered, is what the consumer wants; it should be, and usually is, what the middleman or contractor wishes to handle; and it should be, and often is, what the farmer wishes to produce. The farmer ought to understand that the consumer has a right to demand pure milk at a reasonable price—I mean by this a price that adequately pays for its production. As the consumer loses confidence in the quality of his milk supply, his consumption of milk decreases accordingly, so that the farmer's business is being injured by every bit of dirty milk that is produced and sent into the city of Boston. The farmer ought to understand that it is a financial question with him and that his interest in the matter, as far as money is concerned, is larger than anyone else's. If the farmer only realized this, he would be much more anxious to produce clean milk.

The consumption of milk in Boston during the past five years has not increased according to the population's increase; which state of affairs has been largely brought about by the people's loss of confidence that the milk they were getting was a good and wholesome article. This loss of confidence has been caused

* Read before the Massachusetts Homœopathic Medical Society April 8, 1914.

by the stories (some of them unfortunately true) that milk four days old was being delivered to consumers in Boston, as well as milk from diseased cows and milk produced in filthy barns, and especially by stories of epidemics due to the use of milk.

For some of these complaints the farmer is entirely responsible; for others the contractor is responsible; for still others public rumor or some so-called investigator is responsible. I may safely say, without danger of contradiction by anyone who knows the milk situation, that if, by some miracle, everybody in the city of Boston should suddenly become sure of receiving milk that was pure, healthful and not over twenty-four hours old, at reasonable price, the consumption of milk would enormously increase. Therefore the farmer who produces dirty milk, or knows where dirty milk is being produced and does not report it, is hurting not only his own business but that of every other milk producer. And the contractor who does not see to it that his milk is properly handled and speedily delivered to the consumer is injuring not only his own business but the business of every other milk dealer.

So important is this fact considered by those who understand it that in some trades an association of producers has been formed, and no producer is allowed to belong to it whose product falls below a certain standard of purity. This practice has been found exceedingly satisfactory, since the confidence of the public in the purity of their product has been gained and the consumption of that product greatly increased.

Now let us begin with the production of milk and study a few of the greatest obstacles in the way of securing clean milk. The farmer's position is this:—He is being paid an inadequate price to produce first class milk; he is trying to make a living from the production of milk; he realizes that he is going to get the same price whether what he supplies is good or only second rate, such as some of his neighbors supply. Every six months, through his representative, he enters into a dispute lasting perhaps a month, with the contractors regarding the price he is to receive for his milk during the following six months. And when finally the price is decided upon,—just look at the situation!

The farmer has his plant and equipment for producing milk (and perhaps that is all the property he owns). He has been in the business for years and has no cash capital to fall back upon in case he wishes, perchance, to change his business. When the price is announced he may find it so low that there will be, if not a loss to him, at most so small a profit that he cannot properly provide for his family. All his equipment is invested in the milk business, and, as he cannot give that up without sacrificing everything, he is obliged to continue it, hoping that, at the next semi-

annual conference, his representative may be able to secure a living price for his milk.

What would any one of you do under such circumstances? Who can blame the farmer for trying in every possible way to reduce his expenses for producing milk to the very lowest possible point—even perhaps, to the detriment of the purity of the milk? And can you censure him for not seeing the justice of some inspector's demand that he build a new sanitary milk room? Members of the medical profession, this is not any imaginary situation. It is unfortunately often a true situation. And I have not painted the picture nearly as black as the facts sometimes warrant.

At present, except for a small amount of certified milk, (which amounts to less than one per cent of all that is sold in Boston) as far as the price paid to the farmer is concerned, milk is milk, whether produced under sanitary conditions or not, provided the dirt can be hidden from the inspector. There seems to be nothing for the farmer to gain by furnishing the first class article, except, perhaps, a certain satisfaction he may feel in thinking that his carefully produced milk is often taken to the city along with a quantity sent by one of his neighbors who produces milk under unsanitary conditions, and perhaps mixed with this before being sold. And even this satisfaction is probably more than balanced at the end of the month when he finds that his expenses for producing his clean milk were considerably more than his neighbor's expenses for producing dirty milk, while his neighbor receives just as large a check in payment as he does. In other words, he finds that he is paying out hard-earned money each month to furnish a high-grade product, and is receiving no extra compensation for his extra care.

Under the present law, the farmer has practically no incentive to produce good milk except the fear that he may be caught in producing bad milk and possibly fined for it. He sees some of his neighbors producing bad milk without getting found out, and instead of studying out ways to secure a clean product, he, in some cases, bends all his energies to the task of producing as large a quantity as easily as possible, without being discovered in any of the incorrect methods that he may employ.

In speaking of this phase of the question I wish to speak of it in a rather broad way. Of course there are exceptions to the statements I have made; in fact, I know of many. On the other hand, a man's conscience must be very much superior to the ordinary man's conscience if he continues trying to supply a good, pure milk after he has found that he is all the time running behind financially. What he is apt to do, if he is a conscientious

man, is to give up the business altogether, saying that "raising milk does not pay."

Consequently, we find that the man who is exceedingly careless in producing milk, and frequently produces an unwholesome article, continues in business, while the conscientious man who tried his best to furnish a high grade product, gives up the business; thus the percentage of pure milk is lowered.

Another argument used by the farmer is that milk which is good enough for him, and which he and his family drink without receiving any harm certainly ought to be good enough for the city fellow. He does not stop to consider that the milk he uses is generally used within twelve, or at most twenty-four hours, after it is milked, while the city fellow's milk, after being subjected to a great many trials and tribulations, often does not reach the consumer until two, three, or even four days after it has been milked.

Milk is not the sort of article that each man can judge of for himself. The best tasting milk in the world may have a few typhoid germs in it, and milk that has turned sour may be perfectly healthful to drink. In one respect, at least, milk is treated in an exceptional way. There is hardly any other commodity in the world that is not sold on its merits. For instance, you can go into a market and find a dozen different grades of canned peas, varying in price; you do not have to pay the average price of the different brands and receive in return perhaps one of the poorer grades today and one of the better grades tomorrow and a mixture of several grades the next day. In the matter of milk, you may receive some today supplied by Sam Jones, an excellent article produced under careful conditions and delivered to you in a fresh state, possibly at a loss to the farmer. Next week you may get some very poor milk furnished by John Smith, produced under unsanitary conditions and delivered to you four days after it was milked. Again, it may be your luck the next week to receive in your bottle a mixture of milk, some of which was produced by Tom Brown and some by Jim Robinson; and for each variety you will be charged the same price at the end of the month. Because it is impossible for the consumer to detect impure or adulterated milk, our board of health has made standards of the amount of fat, bacteria and so forth that legal milk should contain. If it were not for this impossibility of correct judgment by the consumer, it would be just as foolish to have such standards regarding milk as to have rules passed by the board of health saying that no chickens should be sold except those that, when tested, showed four per cent of fat.

One great reason for the existence of so much dirty milk is that very few producers know how to produce clean milk

economically, and I may also add that very few physicians or boards of health or bacteriologists know as much about the practical production of milk as the farmers do.

How much respect can you expect the farmers to have for the rules of a board of health that issues such a rule as this, for instance: "A milker shall wash his hands after milking each cow" (notice, no rule against drying them on a filthy towel that has been in common use for a week). Think of the condition of your own hands if, in winter, you had to wash them fifteen times in one hour in the morning and again in the afternoon, doing your work in a room where the thermometer was only 32°! How many days would it be before your hands would be so chapped and cracked that it would be impossible to do any work at all with them? Can you blame the farmer who, knowing perfectly well the foolishness of that rule, feels that the rest of the rules issued by the board of health are equally foolish and has no inclination to obey them? It seems to me that he is not half so much to blame as the board of health that issued the rule. And let me tell you, that rule was actually one of those issued by a board of health in Massachusetts.

In consequence of our present milk laws, we have the farmer harassed in some localities, by inspection by the State board of health, by inspection by the local board of health, by inspection by the agent of the milk contractor, by inspection by state boards of health in adjoining states, and even, sometimes, a fifth inspection by the United States government.

But notice, please, that very little is done, in spite of all this constant inspection, to show the poor farmer *how* to produce a better milk. They simply say, "Your milk is dirty, and if it is not better next time, we will have you in court." As a rule they make no suggestions, or perhaps I should say no practical suggestions, to the farmer in regard to getting clean milk.

Now let us consider what, on the other hand, sometimes happens in some other localities. The local board of health, all of whom, perhaps, produce milk for sale, say, "Why should we make any inspection rules? The milk produced in our town is all good. Besides, if any of it should happen to be bad it won't affect the health of our town, as it is all sold elsewhere." The State inspector says, "It isn't going to be sold within the State, and our appropriation is not large enough for us to take care of the health of some other State." The milk inspector for the contractor says, "It's too far to go up there and inspect those farms this cold weather, and besides, we are not getting quite as much milk as we want and it won't do to cut any of them off at present."

There are several bills before our Legislature now concerning

milk. For a number of years a good deal of the Legislature's time has been taken up considering bills in relation to milk. I do not wish to discuss any of these except to say that some of them are inherently bad and will not, in the slightest degree, help to solve the milk problem.

Another obstacle in the way of placing clean, fresh milk on the consumer's table is the change that has taken place in the milk business of late. Twenty-five years ago it was the custom for a farmer to gather the milk from about a dozen of his neighbors, drive into Boston with it and deliver it to his regular customers. These routes were gradually purchased, one by one, by large dealers or contractors, and, consequently, the small, nearby producer had no outlet for his milk and gave up raising it. From an economic standpoint, this has been exceedingly beneficial in many cases for it has, to a large extent, reduced the number of instances where the same route was covered by a number of milkmen.

If the milk for the entire city of Boston were gathered and distributed by one large company, it could be accomplished much more economically even than it is at present, and it is now managed much more economically than it was twenty-five years ago. But the process of bringing this about has driven from the market the nearby milk which generally is the most desirable and valuable from the consumer's point of view.

Still another reason why it is hard, often impossible, for a producer to furnish clean milk is that it does not pay the small producer to equip and keep in operation apparatus to properly sterilize or clean his utensils. The ordinary farmer knows nothing about bacteriology and cannot comprehend how the small crack in the rim of his milk cooler or of his milk bowl may act as a breeding place for countless disease germs if it is not properly sterilized, or how those germs, passing into warm milk, can develop rapidly. Neither can he understand how it can be that one of his milkers who is afflicted with a sore throat, but able to work, may so infect the milk that a serious epidemic may occur where the milk is consumed.

We must make up our minds to the fact that, to produce sanitary milk, we must employ the same technical knowledge and practical care (note that I say practical) that is exercised to produce a sterile operating room. And how can you blame the farmer if, even with the best intentions in the world, he does not succeed in producing clean milk, when you see some surgeon, whose life study has been much more in the direction of combating germs, slip up in some particular and thus, possibly, spoil his whole operation?

We must remember that no chain is stronger than its weakest

link and that a mistake in properly cleaning one milk pail may injure the farmer's entire output for that day.

Of course no surgeon would willingly or knowingly infect the patient; yet it happens sometimes that the patient does become infected. Similarly it may happen that dirty milk is delivered by the well-meaning producer.

How foolish and impotent it would be to pass a law ordering the State board of health to inspect surgeons at frequent intervals and to pass laws for the care and inspection of the operating room, with fines for surgeons who did not obey such laws!

You pay the farmer to produce your milk (whether good or bad depends on the farmer's conscientiousness). You pay the contractor a certain price to see that he receives good milk from the farmer, that it is properly taken care of and delivered to you speedily and in good condition. There is sometimes a possibility that you may be paying your cook to take such poor care of good milk that, when it is placed on your table, it is not fit to drink.

It would be only a waste of your time to go on telling you how it is that you do not receive satisfactory milk, unless I could make some suggestions in regard to a cure for the evil. And what suggestions I am making toward an improvement in the milk situation I want to ask you to consider not as a finished product but simply as a basis for working out in a practical way a scheme that will give the consumer clean and fresh milk.

The first question is how to get the farmer to produce clean milk and deliver it in this condition to the contractor. The second question is how to have this milk gathered properly, handled properly and delivered to the consumer with all proper speed. The third question is in the hands of the consumer, who must be taught to take proper care of the milk from the time he receives it until it is consumed. The consumer must also be taught to appreciate good milk, so that he is willing to pay for it.

You, as physicians, are interested in everything that has to do with clean milk. You have a duty to your patients and to the public at large, a duty peculiar to you as medical men. I cannot do better than to quote the words of the Boston milk inspector. He says:—"You have an opportunity possessed by no other class of individuals of presenting to consumers the advantages that follow the use of clean milk and the disadvantages likely to be attendant upon the employment of milk of the opposite type. The effort to make the clean milk movement a success will never be successful without the active support and aid of the medical profession. Physicians are urged to assist in this propaganda by encouraging at every opportunity the employment of clean milk. It is one of your duties to see that the public understands the

difference between good and poor milk and then demands good milk."

The State inspector also says: "Unless some plan can be devised to encourage the production of more milk in the nearby New England territory the present policy of extending the distance from which it is brought to this State must be continued, and the bacterial examination shows that the longer distance milk is brought the higher the bacteria count."

There should be sold in Boston three grades of milk; first, pasteurized or cooked milk, which is perfectly good for cooking, can be used for drinking and is sold frankly as milk not suitable to be used when raw, but which has been rendered harmless by cooking; next should come what is to the great bulk of milk, costing, let us say, one cent more per quart than the first mentioned grade—a milk produced on a plan similar to Dr. North's idea (of a central sterilization plant); in addition to these two grades there should be a certified milk produced as at present and of extra high fat content, to be sold at an extra high price. There will always be some demand for this last grade, although it will always be infinitesimal as compared with the great bulk of milk consumed.

Next, I think our system of inspection, with fines and so forth, does not produce the best results in so far as the larger number of producers are concerned. In the milk report to the city of Boston, the inspector says: "If a plan could be devised which would take its place (prosecution and fines) as good if not better results could be obtained for the consumer and at the same time cause less friction on the part of the dealers."

No doubt there are men producing milk to whom the fear of the court is the only incentive for producing good milk. But far better results, it seems to me, can be accomplished with most producers by encouragement and education rather than by holding over them the fear of a fine or other punishment. In other words, it is far easier to secure good milk by showing the farmer *how* to supply it, giving him sufficient financial encouragement so that he *can* produce it without losing money than it is by saying "Your milk is dirty. If we catch you again we will prosecute you." We have tried the latter way for years, and you must acknowledge that its success has not been marked.

It was along this line that a theory was first given a practical test in a little town in New York by Dr. North. And I cannot perhaps do better than to tell you very briefly about the work there.

A number of philanthropists bought an old, disused creamery and installed there a small, cheap laboratory equipment. They laid down five rules which they compelled their producers

and themselves to adhere to. (These were in place of the sixty to a hundred rules that are given to persons who try to produce certified milk.) The rules were as follows: First, Milk into sterilized pails and put caps on the pails as soon as each cow is milked. Second, Place the milk at once on ice or in cold water and keep it there. Third, Sterilize all pails and cans at the central plant and keep them capped until used for milking. Fourth, Have each day's milk tested by the bacteriologist and have a record kept of his findings. Fifth, The company shall pay premiums, in addition to the regular prices for milk at that station, as follows: one-quarter of a cent per quart for milk showing less than 10,000 bacteria (500,000 is the legal allowance); one-half of a cent per quart for milk from tuberculin tested cows; one-tenth of a cent per quart for each one-tenth per cent above three and three-quarters per cent butter fat; one-quarter of a cent per quart for general sanitary care.

With these few rules, the company was able, after the producers had become accustomed to the innovation, to secure milk of a quality as good as certified milk at very much less cost than certified milk, and the farmers secured the benefit of the increased price. It seems to me that, taking this plan as a starter and developing it, we can overcome almost every fault that can now be found with our supply of milk. Under this plan the farmer was paid for what he produced; if he found it more remunerative to produce common, and possibly dirty, milk he was allowed to do it and receive the ordinary price. But if, on the other hand, he wished to produce more sanitary milk he received a correspondingly higher price. The man who kept cows giving a rather thin milk received a certain price for that kind, while he who kept cows giving a milk of higher fat content received a higher price for his milk. In other words the milk was paid for according to its worth, and in addition the farmer was shown how he could produce a better quality of milk if he wished to try for some of the extra premiums.

Another very important feature found to be of the greatest practical help was the sterilizing of everything through which the milk passed. You, as physicians, must realize how important this is, and how true the following words of the milk inspector: "If all containers used for milk could be sterile much gain would follow; but the magnitude of the undertaking under present conditions renders it difficult of application."

The sterilizing could be easily accomplished at their central plant, while, on the other hand, it is impossible for each milk producer to have installed at his farm a properly equipped sterilizing plant for any practical outlay. That is, where the utensils are sterilized at a central plant it can be done, and done properly,

at an added cost of only about 1-100 cents per quart, while the ordinary producer, with thirty cows, if he should have to install and use a sterilizing plant, would find that it added to the cost of the milk about one cent per quart. This extra price the consumer, of course, would ultimately have to pay.

Another innovation that was later added seems to me exceedingly useful in the production of clean milk. A daily count of the bacteria in each producer's milk was made and posted on a bulletin board. Every day each producer scanned the bulletin to see what the count showed in his own case and next looked to see what his neighbor's record was. There was thus bred a spirit of intense rivalry to secure a low bacteria count. This was fostered by offering to the three producers having the lowest bacteria count each month an added premium, which, in some cases, amounted to from $50.00 to $100.00.

This experiment was not carried out without an immense amount of thought and a considerable outlay of money. The company is now not only self-supporting, but is actually making money, and has proved that milk of a quality practically as good as certified milk can be produced and sold in New York at ten cents a quart in bottles.

It may be asked who is going to supply the $50,000 to try the experiment here? To this we can make two replies. First, there has been over $100,000 spent in this State each year on milk inspection without any greatly marked permanent improvement being made. Second, the most costly part of the experiment has already been worked out in New York State and we can use the results arrived at there with what modifications may be rendered necessary with very little expense.

The lessons learned from this experiment are being applied to a limited extent about Boston by several small, isolated dealers. This idea of a central station has been in operation near Boston for about a year. The dealer sends an auto truck over a route about forty miles long to a certain number of selected dairies; these are only ordinary dairies, but every practical care is used in the production of milk. To these dairies he is paying ten cents per can more than the ordinary market price. He has found the scheme very successful and tells me that he hopes within a year to secure customers and milk so that he can have a bacteriological examination of his milk made daily and then place his producers on a premium basis,—a sort of modification of Dr. North's idea. He is delivering to his customers two classes of milk; for one milk that is superior to the ordinary milk he charges nine cents a quart; for the other, that he can guarantee is delivered to the consumer within twenty-four hours after it has been milked

from the cow, he charges ten cents a quart. And he tells me that he finds it hard to supply enough of the ten cent milk.

There are several ways in which this scheme might be carried out. A central station might be started by one of the contractors in a certain locality where considerable milk is produced. And when its benefits had been demonstrated, and some other locality asked to have a station located there, he could demand that a certain number of cans be guaranteed by the farmers before another station should be located.

The State might start a central station with a trained man in charge in a favorable locality; and this would take the place of the inspection of milk in that locality, it would not cost any more than the present method and would accomplish far more in the way of securing pure milk.

A number of private individuals might get together and start a central station, just as was done in New York. This last method would be a more expensive one than either of the other two and would probably not give as good results.

A central station with a trained man in charge would be of benefit in securing clean milk at a reasonable price; and this man could in time become of invaluable benefit to the milk producers in that entire locality as a kind of adviser and expert, showing them the way to produce clean milk and the reasons for each step.

Nearly all milk producers are glad to adopt an innovation if they can be shown a good reason for doing so. As an instance of this:—A few years ago a certain farmer was producing milk that was not cooled to the required degree. The farmer, when spoken to, said that he was placing water and ice in his aerator, and that was all anybody could do. The bulb of a thermometer was held under the milk stream as it came from the aerator and the temperature was found to run from 60° up to 80°. Then while the thermometer was still held under the milk stream the plunger, to agitate the ice water, was moved up and down with the result that the temperature of the milk stream immediately dropped to 60°. When the farmer saw the immediate result of moving the plunger frequently as the printed directions had advised, the trouble about the milk's not being properly cooled at once ceased and the last I heard from him he was considered by his neighbors almost an authority on how to properly cool milk.

In speaking of his model station for milk, Dr. North said, in a recent letter: "Nowhere else do the dairy farmers feel so strong an impulse to keep their milk clean, and I believe that nowhere else is clean milk produced so economically."

There will always be some milk produced that is not fit to

drink, certainly in the raw state. All such milk should be properly treated by heat before it is sold. This milk, of course, would bring the lowest price when so treated. Where sickness occurs on a milk producer's farm the milk should be placed in this class, and the difference in price between what the producer usually receives for his milk and what he is allowed to receive for it after it has been treated by heat should be made up to him by the State. None of you can possibly appreciate what it means to a man producing milk and entirely dependent for his living expenses on the monthly check from the milk contractor, to have his milk suddenly quarantined, and to find that, while his expenses for feed and care of cattle still go on, he must throw away his milk, with the certainty that, at the end of the month, his bills for grain and help and living expenses will be presented to him and he will receive nothing from the milk contractor to help him pay his bills. Under such circumstances no wonder many milk producers fail to notify the proper authorities when a case of sickness occurs in their families. How much more quickly and willingly a farmer would notify the inspector or the board of health of sickness in his family if he knew that his only source of income was not going to be taken from him on account of this notification! The present method is radically wrong, and leads to placing on sale milk produced on farms where there is contagious disease.

A great deal could be done to stimulate the production of good milk if the producers' association could secure the services of a suitable man who knew the milk business in all its phases, and one of whose duties it should be to keep in touch with the entire milk situation, to notify members of the association regarding the latest discoveries in the production and uses of milk, to educate the public to use more milk and especially, when some newspaper comes out with scare-heads about an epidemic of sore throat due to milk, to follow up the epidemic and ascertain whether it really was due to milk and, if so, what producers were concerned and how the trouble occurred. He could then notify the other members of the association in the hope of avoiding a repetition of the same trouble in the future in that or some other locality. This would act as a help to the producers and also as protection to the consumers. I fear that epidemics are sometimes charged up to milk without an adequate investigation. And I am sorry to say that physicians are sometimes responsible for blaming the innocent milk for carrying the cause of the epidemic.

Some years ago an epidemic of typhoid fever occurred in a certain section of a nearby city. The report was issued that it was due to the milk delivered by a certain milk man. One of the physicians attending some of the cases found on inquiry that several of his patients were not taking milk from that particular

milk man, and he asked the investigator how he accounted for this fact, if the disease was caused by the afore-mentioned milk man. The investigator said:—

"Oh, you know folks often find themselves out of milk and run out in the morning and get an extra quart from any milk man they may see passing; probably those other families happened to get some milk from the man in question and thus got the disease."

I do not wish to be understood as saying that epidemics are frequently not due to milk when they are said to be. But I feel sure that if the physicians would be more careful about blaming milk and if the producers' association could have a trained man to investigate each epidemic the public, as well as the members of the association, would receive great benefit from the investigation.

There is another serious difficulty with our municipal milk; it is mentioned by the Dairy Inspector when he says:—

"There are about 7,300 farms supplying milk to Boston, the longest haul being about 400 miles. . . . The contractors are going farther and farther away from Boston for their milk supply and one contractor was considering the project of bringing milk from Ohio."

Think of going 400 miles and "considering Ohio," when within 100 miles of Boston are hundreds of empty barns and land where milk was once raised for Boston consumption and delivered in a comparatively fresh state! Now, because milk is milk, as far as the contractors, and many consumers, care, and because it can be produced a few cents a can cheaper far away, we go 400 miles and "consider Ohio" for our milk!

Milk produced near Boston is and ought to be the most desired, and there is no reason why some of the large dealers with their present perfect equipment for a central plant should not begin to encourage the nearby production of milk by means of auto trucks and a system of premiums for extra quality milk.

If they do not do this, more small dealers will start in the business, now that the auto truck has shown the practicability of collecting milk over a forty-mile route, covering the distance easily in five hours, and delivering the milk to the consumer within twenty-four hours after milking.

I venture to say that all of you physicans and most of your patients would be not only willing but anxious to pay one cent more per quart if you could thus be guaranteed a milk containing less than 10,000 bacteria, delivered within twenty-four hours after it was milked, instead of paying the present price for the present sometimes questionable product.

Before closing I want to say a few words regarding the

proposal sometimes made to sterilize all milk and partially abandon the attempt to secure good milk in any other way. Those making this proposal use for their argument the fact that any milk can be rendered harmless by exposure for a certain length of time to a certain heat. Of course we might use the same argument in regard to any other food; it is well known that any water can be rendered harmless for human consumption by boiling it for a length of time; but how foolish it would be to advocate using a contaminated water supply boiling it to make it safe. instead of securing the purest supply possible and trying to keep it pure.

Another argument against the wholesale letting-down of the bars against poor milk, and the cooking of the entire supply, is the fact that in fresh milk, as it goes through the process of digestion, are developed many bacteria of certain kinds that are of immense benefit to the human being, while in cooked milk these bacteria do not develop during digestion to anything like the same extent, and, consequently, one of the great advantages of pure milk is lost to the consumer of cooked milk.

THE MILK QUESTION FROM THE PRODUCERS' STANDPOINT.*

By R. W. Bird, Framingham, Mass.

I have been asked to talk to you today on the Milk Question from the Producers' Standpoint, and to tell you some of our troubles. It reminds me of the story of the housekeeper, who asked the milkman what made him so late with the milk in the morning. His reply was,—

"Well, you see, Mum, the Pure Food Law don't allow us more than 25,000,000 bacteria to the gallon, and you wouldn't believe how long it takes to count the little divils."

It would be very easy to confine my address regarding the production of milk entirely to the producer, but the troubles open up such a wide field that it forthwith draws into the category not only the consumer, but the distributor as well.

I trust you will pardon me if I keep referring to my own farm, but as our whole development operations were worked out right on the farm itself, I am practically forced to do so. I should also like to state that I am not a "really, truly" farmer, in the sense of the word that I can confine my entire efforts to farming, but unfortunately I am a business man, and am obliged to go to town every day to try to earn enough money in business to pay the losses on the farm.

It is evident that in Nature's scheme for the nourishment of

* Read before the Massachusetts Homœopathic Medical Society, April 8, 1914.

the young, milk was never intended to see the light of day, and if suckled from a normal healthy gland is the perfect food for the offspring. In this natural method of nourishment there is little possibility of contamination from outside sources. As soon as the artificial method of drawing milk is resorted to, there enters a whole set of conditions entirely new and different. The milk then comes in contact with the air, with vessels into which it is drawn, and with many particles of dirt from many sources. The problem of securing *clean* milk, *i. e.*, milk as near as possible to the condition as it exists in the udder, is the problem of the up-to-date dairyman today. To put it another way, it is the problem of reducing contamination from all outside sources to the least possible factor. The first contamination usually begins with the act of milking, and is something that is steadily taking place from this point until the time that it is actually consumed.

About two years ago, owing to the loss of one of my children, directly traceable to poor milk, we decided that we would have a farm of our own, where we could absolutely control the conditions under which the milk was produced, and safeguard our children to the most absolute degree. On this account we purchased three adjoining farms, which are located on the Southboro line of Framingham. I obtained an excellent superintendent, and we tackled the dairy problem.

One of the first things we did was to have the water supply examined, and we found that one of the wells was infected, showing a strong evidence of colon bacilli. We were therefore obliged to dig an entirely new well, and put in an automatic power tank. On the other farm, where the water in the well was the worst, I found that the well was located within twenty feet of the house; that the owner of the farm had had typhoid fever two years previously. On investigating the toilet facilities, we found that the toilet emptied right on to the ground under the house. The conditions under this house were indescribable, there being no cellar, and the surface water ran directly under the house and washed everything into the well. You will bear in mind that bottles and cans from the large majority of farms scattered throughout the country are washed in water from wells, many of which are in proximity to drainage such as in this instance.

The barns were a good deal like the typical barns sprinkled all over the country, where milk was being produced and sold to the large distributors. We completely tore down one barn and rebuilt it. The other barn was in better condition, and we entirely remodelled it, putting in cement floors, walls, ventilating systems, cork brick under the cows; in fact, all the modern improvements. I then bought white milking suits for the men, and felt that I was a top-notcher in the dairy business. Meanwhile

I was selling the milk to one of the large producers and getting five cents a quart for it.

Having kept an accurate set of books from the very start, I could see that from a business man's standpoint this was a losing investment, and therefore I determined to reach out for myself and obtain my own market.

I determined to have a bacteria count taken regularly, and told my superintendent we would not be satisfied until we were running with a bacteria count on an average of less than 5000. You can imagine my surprise when I found that our bacteria was running about 50,000. It seemed to us, therefore, that it must be in our method of handling the milk. We built an absolutely modern dairy in which to bottle the milk, so that we could have everything that was the most up-to-date in every way. Still our bacteria count did not get below 20,000. It was therefore a question, not so much of the inanimate things, as of the men, care of the cattle, etc. We then developed a system of cleaning the cows, so that every cow is groomed and washed as carefully as a child. The walls of the dairy barn are washed down and scrubbed every day. A compressed air water system was put in, so that the floors could be flushed with a hose, at 60 pounds pressure. Shower baths were put in for the men, so that we could obtain absolute cleanliness.

One of the most important things on a well-run farm is to have sufficient isolation stalls located outside of the buildings entirely, so that if a cow is ill she can be at once isolated, and when she is well the stall can be entirely fumigated. With us, if a cow does not eat her food properly, or appears ill, her temperature is at once taken, and if she shows any temperature at all, she is immediately isolated. A veterinary is called, and if it is anything that is at all of a serious nature, the milk is thrown away.

This is perhaps carrying the thing to the extreme point, but what we try to do in all of our work at Waveney Farm is to err on the side of precaution, figuring that an ounce of prevention is worth a pound of cure. Things of this kind do not of course make our milk any cheaper to produce, but much safer to use.

In order to keep an absolute check on the farm to see that the regulations are scrupulously followed out, as I am obliged to be in town practically every day, I arranged to have a bacteria count taken from the bottles each week as they come down from the farm, without their knowing it at the farm, so that they never know at that end when they are going to be checked up. In order to make a running check test I had samples taken every day for a full week from the bottles when they were delivered in Boston, and I will show you on the screen a little later the result of this test.

Every business man or manufacturer nowadays has to have a standard by which the quality of his goods is gauged, and the bacteria count has gradually become largely the standard by which milk is gauged. If poor milk turned red or green, or some color other than white, the labor of the boards of health would be greatly simplified, and the general quality of milk would be instantly and enormously improved. It is not because the average farmer does not want to make clean milk today, but he cannot tell by the looks of it whether it is clean or not, and the average consumer is unwilling to pay a higher price for one milk than another, because he cannot see any difference in it. It is for this reason that the bacteria count is taken as the standard.

Now, while I consider that the bacteria count is of great value, and it is my personal check for efficiency on my farm, I believe it is secondary to other important things, which are not as a rule taken very much into consideration by the average consumer, or I fear by the average physican. This is the question of the health of the cows and the milkers, the purity of the water, and the absolute freedom of exposure of the milk to any contagious disease. For instance, we have notices posted in each barn, reading as follows:—

"For milking, each man must wash face, hands and arms up to his elbows, before putting on white milking suit.

If any man feels ill or has illness in his family, he shall report the fact *immediately* to the superintendent, and unless otherwise directed by him, shall not milk thereafter, until ordered to do so.

No spitting in this barn."

All of our milkers live on the farm, so that we can keep control over them. The men are paid just the same whether they milk or not, and they understand that any failure to comply with the above rule will mean instant dismissal. It is not a very nice job to get up at half past four in the morning and milk ten or twelve cows, and a man is pretty careful, if he feels the least bit ill or any of his family are ill, to notify the superintendent and get out of the job of milking. This works out something in this way:—

About three months ago, one of our men came to the superintendent the first thing in the morning, and stated his wife had been ill all night and he had been taking care of her. He was instructed not to go into the cow barn at all, and the superintendent sent for the doctor, who pronounced it a very bad case of tonsilitis. The man's wife was sent to the hospital immediately, and the man was not allowed to enter the cow barn until the doctor said it was entirely safe for him to do so.

You are all without doubt familiar with the tonsilitis epidemic in Canton last year, which attacked over four hundred of

the three thousand population, and resulted in a number of deaths; also the more recent typhoid epidemic resulting from milk obtained from a dealer in Bolton. In both of these cases, if I am correct, the farmer and his son or the hired man did all the milking and bottling, and although the farmer undoubtedly felt desperately ill, it was absolutely essential that he should continue on the job, as he had no one else to whom he could turn it over. The United States Government statistics show that many epidemics supposedly spread in this way have been reported in literature since 1857. Over five hundred of these epidemics are on record today as directly traceable to the milk supply.

The only advantage of a bacteria count running about 1000 over a good clean milk running at 20,000 is that there are twenty times less chances of getting one contagious germ in the milk, but even with a milk running at 1000 unless absolute care is taken that the milkers and cows are healthy, there might be five hundred virulent bacteria in the 1000 milk as against none in the 20,000 milk, where this particular point was guarded against. The possibility of any of the men who do the milking being personally inherent carriers of disease is to me a very important point, and to guard against this all of our men are examined and tested by a physician.

Many of you may think that I have taken this up for a fad and am something like the student in the Agricultural College, when the professor asked him—"What kinds of farming are there?" and he replied—"Extensive, intensive, pretensive." I want to assure you that I am no more anxious to throw money away on pretensive things than anyone else, but we have simply found by our own experience and an ordinary amount of intelligence that step by step we were obliged to do first this and then that, in order to get our bacteria down. This test is like an inexorable finger of fate, and is governed by laws of absolute cleanliness and unremitting care. With these facts clearly in mind, Gentlemen, what chance at least has the average farmer who is producing the one hundred and ten million gallons of milk brought into the City of Boston each year? What incentive has he to improve the condition of his cows, dairies and barns? There is no law to compel him to have his cows tuberculin tested twice a year, and if he finds one infected, to have her killed. If he does this voluntarily, he has great difficulty in collecting anything from the State. If his cows are so bad that the State does it arbitrarily, he gets for a cow worth $100, about twenty-five or thirty dollars' return. I understand that about one per cent of the cows furnishing milk to Boston are tuberculin tested.

The farmer has no facilities for going to a large center and building up a milk business of his own, as he is confronted imme-

diately with the difficulties of making deliveries over an extended area and has not the ability or the business training (even if he could arrange this) to conduct the selling end of his business profitably. The result is that he is forced willy nilly into the hands of the large distributors, and he received for this, according to the U. S. Department of Agriculture, in 1912, 3.8 cents per quart, and last year was paid, I understand, by the large distributors 4.3 cents per quart, delivered at their car. After he has paid for his time or the time of a hired man to cart this to the car, taken out the cost of his feed and grain and the housing of his cattle, and paid his hired help, what is there left for this man himself, to say nothing of any particular incentive on his part to improve the quality of his milk? Clean milk can be obtained surely and permanently only when cleanliness is paid for. Penalization accomplishes little—education and encouragement much.

The natural inference from my statements is that the large distributors must be robbers; that they have ground the poor farmer down to the last ditch in order to make more money. This, however, is not a fair conclusion. The large distributors have an enormous investment involved. They have hundreds of teams and drivers, and very heavy expenses in the collection and handling of this milk before it is distributed. They have tried a number of times to advance their price to the consumer, so that they could pay the farmer more money and encourage him to improve the quality of his milk, but there has been such a howl raised in every newspaper, and investigations called for at the State House, that it has given the impression that they are all robbers.

The argument on the other side is without question that milk is largely the food of the poor, and they cannot afford to pay high prices for it; that it would create a positive hardship if the price was raised. At the same time, Gentlemen, we are absolutely driving out of Massachusetts a class of men who are most valuable to the community, and that is the farmers. The cows have decreased in this State in the last thirteen years 90,000 head.

In comparing statistics of increased cost of hay, grain, etc., used as food for cows, it shows that between the years 1904 and 1912 feed increased approximately forty per cent, and the price paid to the farmers for the milk increased 20.5 per cent, while the price to the consumer was only increased twenty per cent. These figures do not include the increased cost to the farmer of cows, which have increased in price from twenty-five to thirty per cent; the increased cost of horses and their feed, or the increased cost of labor and the laborers' board.

It may be thought by many that the farmer raises all his own

feed, but here in New England we can buy grain cheaper from the West than we can raise it on our rocky hillsides. In these days of the high cost of living, what manufacturer would or could continue to manufacture an article with such an enormous increased cost of raw material, unless he could receive a commensurate return for his finished product? He must either raise his price or quit. The Massachusetts farmer is quitting as far as milk goes, as is shown by the enormous falling off on cattle in Massachusetts. I understand that if there was a law passed prohibiting the sale of milk in Boston other than that made in Massachusetts, there would not be sufficient made in all of Massachusetts to fill over thirty-five per cent of the demand of Boston alone. Distributors are therefore obliged to go even to Canada for their supplies. In order to enable them to do this, they have developed, featured and advertised the pasteurized milk.

There is no question about it, pasteurized milk is a great blessing to the community in the fact that milk which would otherwise be unfit for use, or so old it would be worthless, can be rendered more or less harmless by this treatment. I have looked up a great many records covering the use of pasteurized milk to ascertain whether the ultimate results were harmful, and the authorities seem to be so evenly divided on this point that it is difficult to draw any conclusion. It does seem to be the case, however, that pathogenic bacteria grow more readily in heated than in raw milk. The germicidal properties of the milk are destroyed by high heating, and finally the surviving bacteria do not have so hard a struggle for existence in the heated milk. It must not be forgotten that pasteurization kills only the major portion of the non-spore-bearing bacteria, and that a large number of the micro-organisms remain, and if permitted to grow and multiply they may occasionally produce undesirable qualities in the milk. The average bacteria in the pasteurized milk delivered in the City of Boston is, I believe, approximately 30,000, and in the raw milk approximately 300,000.

One of the chief objections to pasteurization, however, is that it promotes carelessness, and discourages the efforts to produce clean milk. It is believed that the general adoption of pasteurization will set back improvements at the source of supply, and encourage dirty habits. It will cause the farmers and those who handle the milk to believe that it is quite unnecessary to be so particular, as they think that dirt that gets into the milk is going to be cooked and made harmless.

On making inquiry of several eminent specialists, particularly on the subject of baby feeding, it seems to be their general opinion (while they cannot say conclusively that pasteurized

milk is harmful) that babies thrive better on pure clean raw milk than on pasteurized milk, and they all are in accord in stating that they much prefer to feed raw milk that is clean and pure at the start, than to feed pasteurized milk, which may be a number of days old, and may be made under the most unsanitary conditions.

I quote from Prof. Joseph W. Schereschewsky, in his article on "Infant Feeding," in which he states:—

"Unfortunately when the milk supply of a community has been investigated, either under public or private auspices, the conditions found to prevail in the production and handling of the milk have always been disappointing, if not, as in many instances, revolting to the last degree. The unsanitary surroundings and general condition of filth prevailing at some dairy farms is at times indescribable, and the examination of milk produced under these conditions reveals not only a bacterial flora, but a degree of contamination with gross particles of extraneous matter such as to suggest utter carelessness or ignorance on the part of the producer.

Milk when produced under such circumstances not only contains a plentiful enrichment of dust, dirt, dung, cow hairs, flies, and other foreign bodies, but also a bounteous inoculation of bacteria of all forms, such as may render it from the very outset unfit for human consumption."

Which do you prefer, Gentlemen, clean raw milk with the injurious bacteria kept out and the friendly bacteria left in, or dirty milk pasteurized?

To illustrate this question:—One of my friends, with whom I am intimately acquainted, recently bought a farm. The owner decided to auction off his stock and asked my friend to bid. He went over the herd with his superintendent, and there were only four cows that they would even consider. My friend told the man that if he would allow him to have these cows tested by his veterinary, if they were passed he would bid on them. The man immediately protested and stated that he had never had any cows tested, that it was a foolish thing to do, and used the old arguments of bringing tuberculosis into the herd, etc. They told him that they would not bid unless this was done, and he finally agreed. These were the four best cows in the barn, and the veterinary rejected two of them. I venture to say, if these two cows were infected, that at least fifty per cent of the rest of the stock in the barn had tuberculosis very badly.

When they started to remove the manure, which was stored under this barn, they dug out the decomposed bodies of three calves, and found that this manure pit had been used as a closet by the owner of the barn. The pit was directly under the cows, and there were wide cracks in the floor where the effluvia must have entered directly into the cow barn at all times, and yet this man was selling his milk to one of the large distributors and getting a very good report on it.

To obviate difficulties like the above, a number of conscien-

tious physicians brought about a Certified Milk Commission, for the purpose of certifying milk. This has, however, one bad drawback to the small producer who is willing and wants to make a high grade milk, and that is the extra expense involved in order to obtain certification on his label. According to the statements of the Certified Milk Commission themselves, the additional expense involved to certify milk makes it impractical for anyone who is not putting out at least 400 quarts a day to certify his milk, and on my inquiries among different people who are now certifying their milk, they almost universally have advised me not to certify it,—not because they objected to the regulations as laid down by the Certified Milk Commission, almost all of which are entirely reasonable and necessary, but because the doctors do so little to help sell it, and on account of the additional expense involved, which the producer must stand, making it either necessary to put on a prohibitive price for commercial purposes, or reducing the profit to such an extent that on the comparatively small call for certified milk they would be better off not to have done it at all.

The idea of certified milk is an excellent one, but it is a great pity that the city does not assume the burden of the expense and remove it from the small producer, in which case there would be a large number of small producers making certified milk at reasonable prices, and everyone would be benefited.

To show how this would work, I would say that I figure the cost of my milk is thirteen cents per quart, delivered at the consumer's door. If I were to pay the regulation charges to the Certified Milk Commission which are required, my *cost* would be fifteen cents per quart at the consumer's door. If I was doing treble the amount of business which I am doing at the present time, this cost would naturally be decreased; yet I am doing every single thing that the Milk Commission call for on their certified milk, and am enabled to sell the milk at fourteen cents per quart.

To show how little the doctors coöperate with the producers of certified milk, I quote from Circular No. 9 of the Massachusetts State Board of Agriculture:

> "The amount of Certified Milk sold in Massachusetts—the product of ten or twelve dairies—is very small. Certified Milk cannot be retailed for less than 15 to 20 cents per quart and return cost to the producer with a fair margin for the distributor."

While we have our troubles in producing clean milk—and lots of them—this can be systematized in exactly the same way that a well-organized business, office, factory, or hospital is systematized, and this is under our direct control, but it is of very little value to turn out milk with a count of less than 5000 if one

cannot sell it. It is the selling end, or rather the lack of ability on the part of the producer of the milk to place the situation before the consumer in such a light that he will realize the difference, and the value to him and his family of a high grade, pure milk over the ordinary commercial milk with a bacteria count running possibly into the hundred thousands.

I have been met with the statement:—"We have been taking milk from our milkman for a number of years, and he is so nice and obliging that we would not want to make a change." On asking if this dear old milkman's cows have ever been tested or if the barns have ever been examined by this purchaser of his milk, he generally states they have not, but he is sure it must be good milk as it is so nice and rich. Other men have told me that milk was their wives' pet economy, and I am inclined to think there is a lot of truth in this.

I know of one large producer of milk—making a very high grade product—who employed a gentlewoman of reduced circumstances to call at about four hundred houses in the Back Bay and explain the conditions under which the milk was made, and the value of using a high grade milk of that kind. She placed the matter before people in a very intelligent and interesting way, but the net result of orders from this campaign was less than one quart of milk per day, simply because she was met with the reply —even among the well-to-do—that they were getting a very good milk for ten cents a quart, and they did not see any reason to change, but that if the baby should become sick they would be glad to bear the matter in mind and take a quart a day at that time. In other words, it is the prevailing custom of the average consumer to wait until the baby is sick, and then buy milk as long as it is necessary to get it well again, and then go back to ten cent milk, in order to save four cents a day. This seems to be particularly true of the well-to-do, who can well afford to pay the small difference in the price. The only explanation of this can be that physicians do not impress upon their patients whose health is in their charge the vital importance of pure milk.

I quote from Leaflet No. 39 of the Massachusetts Board of Agriculture:—

"One cannot judge the value of milk *solely* by its composition. Milk produced under reasonably satisfactory sanitary conditions has a decidedly superior value to dirty milk no matter what the latter may test. At the present time milk is being sold at too low a price, considering its food value and the cost of production. In fact, the average consumer has regarded milk as a sort of household necessity, to be bought as cheaply as possible. As to its quality and the methods and care used in its production he has been lamentably ignorant. If his children become ill, he willingly employs a physician and nurse; but he is likely to refuse to pay the slight advance which would encourage the dairyman to produce a more satisfactory food

product for his entire family. He evidently prefers to pay dollars to overcome the illness rather than dimes to remove the cause."

I also quote from the twenty-sixth annual report of the Bureau of Animal Industry, Circular No. 170, issued by the U. S. Department of Agriculture:—

"There has been too much indifference on the part of consumers regarding clean milk, too much of a tendency to regard all milk as the same, and too much of a desire to buy it at a low price, regardless of quality. Merely as a matter of sentiment and refinement, clean and fresh fruit and vegetables command a premium, while dirty food is frequently unsalable at any price. Milk, however, is often regarded with less discrimination. A little sediment meets with no emphatic disapproval. Consumers on seeing side by side pictures of bad and of sanitary stables comment favorably on the latter and express disapproval of a milk produced in the former, but they haggle over the price and when it comes to paying the bills fail to recognize more value in one kind of milk than the other. Milk in most instances is consumed raw, and is exposed to the direct contamination of all the bad conditions with which it comes in contact. Furthermore, it is the exclusive diet of many invalids and infants, and is an almost perfect medium for the development and spread of germ diseases. Aside from any refined prejudices in favor of clean food, dirty milk may prove expensive even as a gift, while clean milk may be an economy at several cents above the ordinary price. A few additional cents a quart for milk is cheap insurance against some form of sickness. At the higher price the food material in the milk is cheaper than in many kinds of meat."

With all these warnings which are being issued by the United States Government and the State of Massachusetts, and by competent men who are in a position to know, don't you feel that medical fraternities are lax in withholding their coöperation? If you heard of some new cure for tuberculosis, you would be quick to investigate it on account of the possible benefit to humanity, but here is the milk question, which has equal possibilities, and because it is an old story to you it is entirely forgotten day by day in your busy lives.

After I had completed every detail that was necessary to produce a high grade milk, I felt that all I had to do was to make known to physicians what I was trying to do, and that a milk of this nature would be welcomed, investigated and recommended by the medical profession. After spending $450.00 this year to put this matter before about fourteen hundred doctors, the net result of my efforts is that three doctors have recommended it to their patients.

To be absolutely honest with you, Gentlemen, the worst trouble of the producer lies in the absolute indifference of the physicians. While we can blame the consumer for his *seeming* indifference, it comes more largely from ignorance of the actual conditions that he is not himself familiar with, but with the physicians there is *absolutely no excuse. They* are the ones that have to be called to eradicate the evils coming from impure milk. *They*

are the ones that through the various laboratories and medical meetings have been told and advised of the dangers of impure milk, and yet when a man is willing to give his time and spend a large amount of money to produce milk of the standard and quality which is desired and sought for by many conscientious physicans (generally at a loss to himself) the physicians as a whole are so indifferent that they will not even investigate it or recommend it, or do anything on their part to enable that producer to continue to produce a milk of this standard.

To show you how little physicians seem to care in regard to this matter, I made an offer to one of the large hospitals to sell them my milk by the can at the same price as they were paying, and agreed to ship them one can or five cans a day for a week, and that they could take samples from both my milk and what they were using, have tests made by an independent chemist, and I would pay half of the expense of this test, but I was informed that they were too busy to bother about it.

I am dwelling on this matter somewhat at length, as it is the most serious and acute trouble that the milk producer of high quality has to contend with. I feel it is necessary to rouse you and make you see the imperative necessity of individually and in your organizations coöperating and helping the few—I regret to say the very few—producers of clean raw milk in Massachusetts. This help to be effective must be in a material and not moral form. I have had many letters from doctors, saying—"Keep up the good work," or "I am with you in your efforts to produce clean milk," or "I wish there were more like you in your endeavors to bring up the quality of milk." These letters are very encouraging, but they do not help the producer of high grade milk to pay his feed bills, or for the labor on his farm, and they would have been much more encouraging if the physicians had also stated that they had taken the trouble to investigate the farm and were recommending the milk consistently and persistently to all of their patients.

When I started my dairy a number of my friends who have had a good deal of experience in this connection, advised me on no condition to try and make a high grade milk. They said that they had been all through the game; they had lost thousands of dollars due to the absolute indifference of the medical fraternity as a whole to this question. They stated they had spent hundreds of dollars endeavoring to get doctors sufficiently interested to even investigate their plants, and the result is they had abandoned their efforts to make high grade milk; had stopped putting up any bottled milk whatever, and were either furnishing this direct to a few large consumers in cans, or had discontinued their

dairies entirely and gone into apple culture or other forms of agricultural farming.

While I am not discouraged, Gentlemen, and am going to fight this thing through to the end, simply because I personally am not dependent upon the profits of the farm, I have found that every statement they made in regard to this is absolutely true, and being a business man and not a dreamer, I too am planting an apple orchard.

Although I know that this matter has been taken up very strongly at addresses of different medical societies by several doctors, I believe that when you can see this from the standpoint of a *producer* of high grade milk, you will feel it is not only your duty, but that you owe it to your patients, as well as to those who are giving their efforts, time and money to produce milk under these conditions, to give it your most hearty coöperation and help.

I want to make as strong an appeal to you as I know how for the Massachusetts farmers as a whole. The best milk bill that was ever brought before the Legislature, in my opinion, was the Meaney Milk Bill, which simply required that every bottle or package of milk delivered in Massachusetts should be labeled as to where it originated. This I understand applied to pasteurized milk as well as to raw milk. How would you feel some morning if you saw milk being poured out for your baby from a bottle labeled "Produced in Canada," and you knew that the milk was anywhere from three to four days old? While we know that evils exist in the milk produced in Massachusetts, we know that our Board of Health is without doubt using its best endeavors to control and eradicate as far as possible these evils. Our Board of Health has no particular jurisdiction over milk made in Canadian dairies, and while I understand they are inspected by the Board of Health, at the same time you cannot dodge the issue that milk from Canada must be a great deal older than milk which comes from even the Western part of this State. You would at once insist that hereafter your milkman left you Massachusetts milk, and you would be willing to pay more for Massachusetts milk in order to obtain it. This would enable the large distributors to pay the Massachusetts farmers more money for their milk, and would stimulate and bring back to Massachusetts a great industry which is fast being wiped out, and would give the Massachusetts farmer an opportunity to improve the quality of his milk, because he would be receiving a return commensurate with his efforts.

I also want to appeal to you for the comparatively few producers of high grade milk in Massachusetts. Investigate some one or two of these and give them your coöperation and assist-

ance. Every one of them will eventually be forced to give up the making of high grade milk and go into the fruit or truck business, without your help. It is up to you, Gentlemen, to educate the consumers of milk and instruct them, because you are the medium through whom we must work to this end. They will listen to you, whereas they think we are trying to interest them on account of the so-called exorbitant profit on the milk business.

In closing I should like to ask if you have ever known of a man in the dairy business who has been able to retire and live on his income?

DISCUSSION OF PAPERS.

Dr. O. W. Roberts of Springfield.

I believe that it is impossible to draw blood from water; and it is impossible for any man to produce pure milk at the price the farmer is getting for it now. The high price of feed, etc., forces the farmer to ask more money for his milk. I am sorry not to have heard a paper from a man on that side of the question. The interval between the producer and the consumer is too large.

Every word of Mr. Bird's paper was true, and more than that is true. Something like six years ago I prepared and read a paper in Springfield on the subject of Certified Milk, and later an effort was made to have certified milk for Springfield. The matter was taken up and was incorporated by the city. Then the difficulty was to find someone to produce the certified milk. We went to many farmers, but we could find no one who was willing to attempt it. Finally we found one man that thought he could do it. He had a concrete barn, etc., had his cows tuberculin tested, and started out to sell his milk. The physicians were notified that certified milk could be had and were asked to get patrons to help the man start. The physicians did not respond and the man failed. Then there was no one to produce certified milk in Springfield.

We have a kind of milk produced by one man that is very good. One thing that is important is that this man has not had his cows tuberculin tested but less than 1000 bacteria are counted in the milk. Such milk is used at the Webster Maternity Hospital and also for baby feeding. It is supplied at a price that enables it to be used. It is bottled and used about the town. This agitation in regard to the question made the conditions better. The Board of Health have taken it up energetically and today there is a better state of things in Springfield. There are now a good many farmers producing milk of a high standard. But they do not make their fortunes.

One farmer to whom I went showed me his figures. He was producing 200 quarts a day and was bringing it to the customer in good condition. His barn was very clean; it was not concreted but was whitewashed. For his whole winter's work he received less than $125 above what it cost him. It seems to me that not enough is said about the increased cost of producing milk. Mr. Bird tells us that he has to sell his milk for 14 cents a quart in order to get his money back. The pictures showed his barns to be very fine, but how few barns we find that are in that condition!

What do the middle men get? To produce 300 quarts a day requires the services of two or three men, then another man who can start out next morning at 3 o'clock and deliver the milk. The farmer who does this gets more for his milk than 100 other men. This is the problem, and when we get to the place where we must acknowledge this we shall get better milk.

In regard to the first paper, we have also agitated the question of certified milk and baby feeding, and we have done good work along this line. We are not provided with statistics, but they are probably the same as those given in the first paper. Of course the work is on a small scale,

hisfor we have only one milk station. We do precisely as you do here, and we have had a good many instances where the second baby has been nursed in families where the first baby was not nursed. Not one of our babies has been sickly. Another thing we have done is this: The first of March we employed a nurse who acts as a prenatal nurse. Her work is to go about among the people and teach mothers how to care for themselves before the baby comes, what they should eat, etc.

Dr. C. A. Eaton, of Portland.

Mr. Chairman: I would like to tell you something of the milk question in Portland, which has a population of 60,000. Practically all the milk used in Portland is delivered inside of 24 hours, and 50 per cent of the milk is delivered by the producer himself. Up to July first for some years back there was no system of inspection. The milk was brought to the laboratory for inspection. We have been conducting a campaign for cleaner milk, and we have arbitrarily set the number of bacteria at 100,000, which is the number set by the City of Boston. We were getting milk containing all the way from that to 10,000,000 bacteria. The Board of Health investigated the farm of one of our dealers who was selling milk and delivering it himself. They drove past his farm and saw a picture like one that Mr. Bird threw on the screen. The barns were in bad condition. There was dust and dirt and the excreta had not been removed. That serves to illustrate that the system of keeping track of the bacteria of milk must become the score card system. There should be some means whereby the farmer can be shown the right way. This does not mean a model dairy, but it does mean that with ordinary care milk can be produced that will fall far short of 100,000 bacteria.

The City of Washington has recently started prosecution under the pure food law. A letter has been sent out asking for a reply before the 15th of this month. The Milk Producers' Association are making up a pool to defeat this, and they are trying their best to kill it. There is more than one side to the question. In some of the larger cities of the United States where a large part of the milk is produced and delivered by farmers at the price they charge we ought to get cleaner milk than we really do get. A publicity campaign is a good thing. The dealers' names with the laboratory findings on their milk could be published with good results. We might also publish the names of the dealers who have complied with the law.

This problem was so serious that we tried to interest the physicians, but we have met with very little success there. I think the plea made by Mr. Bird is a good one and should be heeded.

Dr. W. S. Walkley.

Mr. Chairman: I am especially interested in the milk question in the city of Chelsea. I have been very much interested today in the pros and cons of the question, especially in Mr. Bird's talk and the pictures showing his magnificent establishment. Not many of us were born in a palace, and inadvertently some of us live in the slums. Now a great number of cows that produce the milk we drink are in a filthy condition, and I think the reason is that the average farmer is lazy. He gets by with as little work as possible, and the reason he does not make more money is because he does not take pains. It should be with the farmer a business proposition, but he does not know whether he is making or losing on any individual cow. This is one reason why many men have failed, and another reason is that the farmer does not try to learn;—he has the spirit of "Oh, you cannot show me anything!" You must catch the farmer when he is young, before he has ever broken pasture, if you want to teach him anything.

The man who inspects the milk in the cities is the man who knows the conditions. Regardless of the bacteria in the can, strain the milk and you will know the kind of farmer who produced it. If he is the lazy sort there will be dirt on the cloth. The individual factor is of much more importance than the magnificence of his barn. It is just as it is in surgery. The surgeon takes every precaution in regard to his hands; why not the milk man?

This is a serious question, this one of the municipal milk supply. The common people are the people most vitally affected; therefore, their interests should be more safely guarded than mine. The milk should be pasteurized to avoid any danger. Mr. Strauss has offered $1,000 to any one who will show that pasteurized milk is unwholesome. This offer has never been accepted. There is always a danger of contagion in unpasteurized milk, and it is better to be on the safe side. It is impossible to inspect all these farms and have every man who works on the farm examined. It cannot be done. I think there have been a great number of epidemics that have been directly traced to the milk supply. Typhoid can be prevented—why not prevent it? Why not have the milk pasteurized? Personally, I would rather have milk that had been brought 200 miles if I knew it was safe than to have milk brought from 50 miles away that was bad. Typhoid is typhoid and it grows in milk to perfection. This is a question that must be faced.

Why don't the farmers organize? They have been shown how. Why don't they do this on their own initiative? One reason why the price of milk is so high is that there are so many independent dealers. They raise the price of milk, and if they would combine they could produce milk cheaper. Of course the farmers must have more money for their milk. Five thousand people go to the "movies" every day. You cannot tell me that the people cannot pay more money for their milk when they will pay any amount of money for their pleasures.

Dr. Suffa.

The last speaker has touched upon one point which we did not hear mentioned in any of the papers in regard to bacteria infection. Whether it comes from the producer or from the middle man and whether there are statistics to show this I do not know. But I believe that it is possible for milk to become contaminated after it leaves the producer. It seems to me a very easy thing to catch contagion in milk when the cans are without a sign of a cover. Another thing you sometimes see when you go into a hotel kitchen is the men plunging their fingers into the bottle in removing the stopple. This must be a great source of danger.

Dr. Walkley.

There is no question but that milk can be contaminated at any point from the producer to the consumer. The middle men have their regular dairy numbers and they go over their same routes every day. If there are two cases of typhoid reported on one route we investigate. It is then traced from the dairy to the farm and we find out whether there is any typhoid on the farm in any member of the family. It is quite easy to lay it to the milk or water supply.

Question.

Have they statistics to show that?

Dr. Walkley.

"Oh yes. We have had wide experience in typhoid, especially in our city. About Christmas time there were two cases of typhoid on one man's route. We went to see this man and telephoned to the State Board of Health. They found that typhoid was more or less constant. In the meantime we found a case about 35 years of age. We did Widal tests and found no germs present. Then the investigation was switched. We found that cases were discovered from time to time on this man's milk route but we were not able to put our finger on it because a typhoid woman died who used to help take care of the bottles. And so there was a missing link in this case.

Mr. Breed.

Mr. Chairman: There is no more margin of profit to produce certified milk at 16 cents than any other kind of milk. The only way to impress it on the people who can afford the certified milk is by advertising. The people cannot expect as good milk at 9 cents as at 15 cents. Having taken a trip through the New England States recently I can confirm what the other

speakers have said. We realize that it costs more money today to keep cows and I think that the people will all use a substitute for milk in 25 years unless we can raise the standard, have the cows up to the standard, and pay a price for milk so that the farmers can at least get a living out of it. A great many farmers produce milk simply because their fathers did it before them. Now they are realizing that it does not pay and they are giving up their cows. I think we shall learn this and be willing to pay a little more a quart for our milk.

INDICATIONS FOR, AND MY EXPERIENCE WITH, PHOSPHORUS, IN PNEUMONIA.

By E. B. Franklin, M.D., New York, N. Y.

The most prominent symptoms from phosphorus, referring to the chest are: congestion to the chest; great weight on chest, or feeling of tightness; dryness of air passages, or rusty or bloody sputa; excoritaed feeling in upper chest. What the old colored woman said has been remembered many years, *i. e.*, "I feel as if someone was sitting on my chest and scraping my throat with a hoe." Hoarseness. Shooting in chest, especially left side. Cough and discomfort aggravated while lying on left side. Hepatization of lower half of right lung.

As for my experience with phosphorus in pneumonia, I will mention only two cases.—When grippe first invaded New York, a young lady who had suffered an attack was so recovered that she went out to dinner with a friend, returning late in the evening. She had no knowledge of having had any chill or of having "taken cold," but was seized with a violent fever in the night, and I was called, and found her with a temperature of 106° and pneumonia established. She was desperately ill, and sank down and down. Phosphorus was indicated clearly through a long portion of her illness. I gave it first in the 6th centesimal dilution, and it aggravated her case, so she said she felt she was smothering after every dose. So I changed to a high attenuation—I think it was the 30th,—which left nothing to be desired.

Another case was that of a young travelling salesman who was seized by pneumonia while in the South, and lay in bed for three days, when the doctor told him if he wished to get home alive, he had best get on a sleeper and go at once. I met him in New York and put him at once in bed. His lungs were badly involved, and he sank down, so that he gave us the "death rattle," as the old folks used to express it, all one day. I also aggravated his case, by giving phosphorus 6th centesimal, so changed to the 200th, which was continued with success.

Let me say, I am not a high-potency man. I sometimes give mother tinctures. Have given even the mother tincture of belladonna, a few doses, and find that we must select the proper strength, as well as the proper drug, to suit the case and diseased condition in this very difficult business of prescribing.

ADENOIDS AND AURAL DISEASE.*

By Harold L. Babcock, M.D.
Assistant Aural Surgeon, Massachusetts Homœopathic Hospital.

The fact that enlarged or diseased adenoids may cause aural disease is so universally recognized by physicians today, that it would seem almost unnecessary to bring the subject to your attention this evening. There are, however, some phases of the question which may be emphasized with profit.

In the first place, a moderate amount of adenoid tissue *may* be present in the nasopharynx of a child throughout his early period of development and give rise to no aural trouble. When, however, the mass of adenoid tissue becomes sufficiently hyper-trophied to cause direct pressure on the mouth of the Eustachian tube, thus interfering with the ventilation of the middle ear; or when diseased, it harbors pyogenic bacteria in a location which favors their progress by direct extension through the Eustachian tube to the middle ear; *adenoids* become a factor in the etiology of aural disease.

The adenoid body, also called Luschka's Tonsil, is a mass of lymphoid tissue situated on the upper and posterior walls of the nasopharynx. It is composed of masses of round cells held together by connective tissue, and contains mucous glands in its deeper portions. Including the faucial and lingual tonsils, this third tonsil completes above the chain of lymphoid tissue known as Waldeyer's ring. The physiology of this tissue is not definitely known, but when normal it is generally believed to exert a protective action by destroying pyogenic bacteria which have reached the nasopharynx and pharynx by way of the nose or mouth.

Adenoid enlargement is attributed to a lymphatic diathesis which causes hypertrophy of all lymphoid tissue, to tuberculosis or to syphilis. Nasal obstruction in any form favors its development, and Wood says: "The lymphatic structure of Luschka's Tonsil, its anatomical relation to the respiratory current, its contiguity with similar tissue in the nasal walls, so expose it to irritation and infection that it is often diseased." Enlarged adenoids are frequently observed, however, in otherwise healthy children.

Obstructive adenoids are most often found in children between the ages of three and twelve years, and as this tissue usually shrinks as the child approaches adult life, the theory has been advanced that the adenoid is in some manner a factor in the child's physical development.

The early diagnosis of these obstructive adenoids is of vital importance if the function of hearing is to be saved or restored. This cannot always be accomplished by the use of the post-rhinoscopic mirror as the gland itself may be little enlarged. Upon digital

examination, however, soft material will be detected in the region of the fossa of Rosenmüller and around the tubal orifices. It is this large class of cases which does not present the typical picture; *i. e.,* mouth breathing, snoring, discharge from the nose, narrowed nostrils, upper lip projecting from the teeth, and dull facial expression; but which does exhibit ear affections, owing to the location of the growth; that comes especially within the province of this paper.

A small organ bearing a very important relation between the offending adenoid and the offended ear is the Eustachian tube, about which I wish to say a few words. The Eustachian tube, so-called after Eustachius, who was the first to describe it minutely, is the passage connecting the middle ear with the nasopharynx. Its length is about one and one-half inches, its position is oblique, extending from the middle ear forward, downward and inward. It consists of a bony canal in the upper third and a cartilaginous and fibrous canal in the lower two-thirds, the average diameter being about one-twelfth of an inch, and the narrowest point being at the junction of the osseous and cartilaginous portions. The tube is lined with mucous membrane of a ciliated, cylindrical variety, with movement toward the pharynx, thus aiding the flow of mucus or fluid from the middle ear. The wide oval-shaped orifice of the tube into the nasopharynx lies on the external wall just behind the posterior extremity of the inferior turbinated bone, and its movements, opening and closing, are controlled by the tensor palati and levator palati muscles which contract during the act of swallowing, thereby opening the tube.

Its function is to ventilate the middle ear; that is, to equalize the air pressure on the inner and outer side of the drum head. In a state of rest the tube is closed and only communicates with the nasopharynx during the act of deglutition, at which time its orifice opens, so that it is very evident that any foreign body, such as an enlarged adenoid, or hypertrophied end of an inferior turbinate, which interfered through pressure with the *opening* of this tube, would disturb the air pressure equilibrium, causing a relatively increased pressure on the outer side of the drum head. Any interference with this equilibrium results in auditory disturbances by affecting the conductivity of the ossicles. In children the tube is shorter, the lumen relatively wider, and the direction more horizontal, thus rendering inflation of the middle ear easier, as well as promoting better drainage from the tympanum, but, on the other hand, making it more liable to carry infected secretion to the ear.

Now if this tube becomes diseased, even though the cause, if it be adenoid, is removed, it becomes incapable of properly performing its chief function; *i. e.,* ventilating the middle ear, and becomes

an independent factor in causing aural disturbances. Holmes believes that over 90 per cent of all cases of otitis media are due to disease primarily in and about the Eustachian tube. In a report of several hundred cases examined by him with his specially devised nasopharyngoscope, he mentions the following conditions found in and about the orifice of the tube: acute and chronic purulent and non-purulent inflammation, hypertrophy and atrophy of the mucous membrane, adhesive bands, polypi, epipharyngeal abscesses and luetic lesions. These conditions he was able to treat with the aid of his nasopharyngoscope and whenever the tube could be restored to its normal patency there was marked improvement in the existing aural condition.

The definite forms of aural disease which adenoids may be directly or indirectly responsible for, are briefly: (1) tubal congestion, with its resulting middle ear hyperæmia and partial vacuum, retracted tympanic membrane and disturbance of hearing; (2) acute catarrhal otitis media, and (3) acute suppurative otitis media. The symptoms of tubal congestion I have just mentioned.

In acute catarrhal otitis media, the infection which at first causes only a congestion and closure of the Eustachian tube, extends to the mucous membrane of the middle ear, causing at first hyperæmia and then a mucous or serous exudate in the tympanic cavity. The symptoms usually observed in this condition are: feeling of fulness in the ear, sharp radiating pains about the side of the head, considerable discomfort in swallowing, varying degrees of deafness and tinnitus, and in children more or less fever. Bacon states that in infants suffering from this condition meningitis is sometimes suspected, until examination of the ears reveals the true cause of the trouble.

Acute suppurative or purulent otitis media runs the same early course as the acute catarrhal type, except that the symptoms are all more severe, especially the pain, and, the infection in the middle ear being more active, the exudate soon becomes purulent and a spontaneous rupture of the tympanic membrane occurs, after which the condition commonly known as "running ears" is observed.

In the diagnosis of these conditions the appearance of the tympanic membrane is an important factor and physicians in general practice should render themselves able, at least, to recognize the grosser pathological appearances of the ear drum. Under good illumination and with a moderate amount of training, this is not difficult, except in infants or very small children. With that ability, a physician when called in to treat a case of ear-ache, could distinguish between the pearly grey lustre of a normal membrane, the retraction and prominent short processes in tubal congestion, the pinkish color seen in acute catarrhal disease and the beefy redness

and bulging in acute purulent otitis media. He would then know whether to proceed with his treatment for relieving pain and inflammation by hot irrigations or other means, or to seek the advice and services of an aurist.

The amount of *hearing* in children can be measured and watched by physicians even though they fail to recognize pathological conditions in the ear. As the hearing becomes affected whenever the normal ventilation of the middle ear is interfered with, it follows that deafness is a symptom of adenoids whenever the latter cause any pressure on the orifice of the Eustachian tube. Meyer reports that seventy-four per cent of his cases of adenoid disease had more or less deafness. Dench believes that one-half of the pathological changes occurring in the middle ear are the result of these growths, and Blake claims that adenoids are responsible for eighty-eight per cent of all deafness. However, as Wood says, "not thirty per cent of adenoid children present well-developed characteristics, and so evade detection until audition has been permanently injured," and as about half of one's normal hearing can be lost before he is incapacitated for the average duties of every day life, it becomes all the more important that an early diagnosis be made.

I shall not attempt in this paper to take up *in detail* the treatment of the various aural conditions resulting from adenoids, as this lies in the field of special work, but will outline a few general principles. All obstructing or pernicious adenoid tissue should of course be removed as soon as detected. Parents are sometimes told that the operation for the removal of adenoids and tonsils is a simple one, with no attending risks to the patient. This is a very grave error, and I give one example of possible after effects taken from a paper by Lewy of Berlin on "Complications After Adenectomies." He speaks of "the danger in removing this chronically inflamed vascular organ, frequently containing encapsulated suppurating foci which are set free on the raw bleeding surfaces of the nasopharynx," and reports several types of complications, among which he cites a case of acute middle ear suppuration with fatal meningitis, seven days after operation.

Other nasal obstructions such as a hypertrophied inferior turbinate, deviated septum or spur, must be corrected. Often, if the adenoid has been present long enough to cause pathological changes in the orifice of the Eustachian tube, these must be treated after the offending organ has been removed, the chief object being to re-establish proper ventilation in the middle ear. In this connection, as mentioned previously, Holmes reports remarkable success by treating the tube locally by the aid of his specially devised instrument. Sometimes simple inflation will accomplish the desired result. I believe in the majority of cases, where the hearing has been

affected by the presence of adenoids, that the removal of the growth will not in itself be sufficient to restore the normal hearing, but that with a free, healthy nasopharynx the ears can be treated locally; *e. g.,* adhesions stretched or broken, and the drumhead restored to its normal position, etc. with gratifying results and lasting benefit. The removal of obstructing adenoid tissue will not always cure a discharge from the middle ear, especially if chronic, but, to use an expression of Dr. Bellows, it is the "foundation work" necessary before beginning to treat the abscess locally.

The subject of adenoids and their effects on children is being taken up today in the public schools, along with other advances in medical supervision, and the present day medical inspector is in a position to prevent and correct a tremendous amount of nose, throat and ear disease. Statistics show that from twenty to thirty per cent of school children have adenoid growths, but that not one-fourth of these children present well-developed aural symptoms and thus avoid detection until much damage has been done. In 1907, 402,937 children were examined in Massachusetts for defective hearing, and 27,387, or six and three-tenths per cent, were found to have some impairment. These cases were not all caused by adenoids, however, as blows, pulling the ear, foreign bodies, "colds," and infectious diseases were given as other causes. This is a low rate, as some observers give as high as twenty per cent with aural complications. Children seven or eight years of age were found to show more of these defects than those of any other age. Adenoids have been found in about fifty per cent of deaf mutes and are, no doubt, one of the causative factors of that condition. Woakes, of London, thinks that in England twenty per cent of the cases of enlarged adenoids have aural disease. In New York City in 1907, of 7,608 school children examined, 2,159, or about twenty and one-half per cent had enlarged adenoids and tonsils. I found last year that of 240 children examined in the lower grades of the Dedham Public Schools, 61, or twenty-five and five-twelfths per cent were suffering from obstruction. A child thus affected is doubly handicapped in his school work, for, in addition to his repeated absences, due to frequent attacks of "head colds" and ear-aches, he is, when present, further placed at a disadvantage through his inability to hear what is said in the class room, and soon comes to be looked upon by the teacher as stupid. This is usually an unjust though perfectly natural conclusion.

The figures just given show very forcibly, it seems to me, the frequency and importance of these conditions and in closing I wish to emphasize three points:

(1) The importance of early diagnosis of obstructive or diseased adenoid tissue.

(2) The need of careful and frequent testing of hearing in children.

(3) The necessity of determining and removing the cause, whether adenoids or not, of every discharging ear, as such a condition is a menace to the health and even the life of a child, until it is cured.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 4-E. Anxiety-Hysteria.

The patient is a rather large, ungainly young woman, 22 years of age. Her father is a mason and florist in a small town, and is living and well. Mother also living and well. Patient is one of seven children. An older brother is very unstable, has periods of religious fervor alternating with debauchery. The patient went to school from five to thirteen years, but much of the latter part of this time was out of school on account of illness. Had measles, mumps, scarlet fever and whooping cough. From a child she suffered from night terrors, so that her mother had a door cut through between their rooms that she might feel more secure. Patient was temperamentally timid, fearful and hypersensitive. She was of a worshipful nature, and fell in love with one female teacher after another, liked to carry them flowers, fruit, etc. To her they were all goddesses and she envied their brilliancy. At fourteen she menstrated normally, and has never had any menstrual trouble. Her mother had not prepared her for this event, but her school friends had and she was not shocked by its occurrence. She entered high school at fifteen, but learned with great difficulty, and thinks she did not "take in" things as the other boys and girl did, though her perceptions were all normal. She was subject to neuralgia and had occipital headaches at this time, and thinks she was never very strong.

When fifteen she took a great interest in the church. A young minister came to town whom she greatly admired. He made of her and was not altogether discreet, and she permitted this attachment to take a strong hold upon her mind, spent much time decorating the church, etc., and built up about his mental image an extensive psychic elaboration with a strong emotional content as only a neuropathic temperament will do. He persuaded her to join the church and baptised her. But he was already married, which made it necessary to suppress this admiration for appearance sake, thus starting a strong mental conflict. At seventeen she began to run down, missed school often because of ill health, and finally gave it up in her junior year, at nineteen. During the

last year at school, after the death of a favorite uncle through accident, she began to have fainting attacks; in fact had the first one on being told of his death. Patient says that she did not lose consciousness but fell on the floor and was delirious, talked a lot for an hour or so, and cried. She had had weak spells before this but had never fainted. Since, these attacks have occurred with increasing frequency, and for the past year or more have occurred at night, with intense night terrors, when she would wake from sleep in a trance-like state, scream loudly, tear her hair, throw herself about, clutch her throat, and beg not to be hurt.

Sleep has been very poor for four years, with much dreaming of an unpleasant character,—common dreams are that she is falling from high places or is climbing steps that give way under her. People are frequently killed or have died. A dream she recalled was that the house was going to blow up, her father went insane and threw her out the window, she knew her mother and baby sister were in the house and terrified. Still another frequent dream was of a man coming down the attic stairs to kill her; she could hear and see him. A dream she had five or six times was of a man, short, old, queer looking, who went by the door and seemed to be coming in. Each dream he seemed to get nearer and the last time he changed to a man-animal. She awoke to find herself crouching at the head of the bed as if she had been struggling with him, and she had hard work to believe it was not really so. The dreaming is frequently followed by weak spells or faints the next day.

When the patient came for treatment she was having either night terrors or faints in which she actually lost consciousness every two or three days. She dreaded to go to sleep because of the dreaming, which was practically constant and terrifying, so that she was much reduced for need of sleep. She dreaded to meet people, a condition which had gradually increased with the progress of her illness, as had other odd temperamental traits.

Physically she had no evident defect, though the vasomotor instability was evident from the rapid change of color in her cheeks. There was a fine tremor of the closed eyelids, and a reticence of manner which bespoke a nervous temperament.

Discussion.

It seemed evident that this young woman was suffering from an anxiety state built upon an hysterical mental soil which to Freud and his followers means a sexually unstable temperament. The discussion necessary to the full elaboration of this case would involve the whole subject of hysteria and more especially anxiety-hysteria (Freud). So I shall content myself with a simple statement of what was actually done to get her well.

She was under treatment for three months, and under observation in a working position for a month longer.

At first a careful history was elicited from the patient, both family and personal, and the necessity for perfect frankness and honesty of statement impressed upon her. She was given Freuds' "Theory of Hysteria" (Brill's translation) to read. I have found this a convenient method of determining whether or not, psychoanalysis is likely to be of use. If it interests the patient, I take advantage of that interest, if not I discard it for the time being at least, and substitute talks on general psychological subjects as: —the make up of the mind genetically;—how we differ from the lower animals mentally;—how civilization has moulded the premature child mind and imposed upon it conformity to many customs necessary to law and order, but often at variance with our fundamental desires, and necessitating a degree of self-control difficult to certain temperaments. This leads to a discussion of the emotions and their effect upon memory and attention. In suitable cases I have frequently been able to interest the patient in this general line of thought; if not it is dropped. It is surprising how few persons have any idea of mind structure or why they think, feel and act as they do. In these talks, I have always held to the importance of the brain structure as the basis of the mind functions, preferring not to enter into any theological discussion. Many patients have already sought the church or some healing cult, believing their illness to be a moral one, and they are frequently filled with doubts and misgivings about their religious teachings. It seems to me better to refuse to enter into this part of the subject except to urge the patient to blindly accept the creed and doctrines of the family belief. For our purpose it seems better to stand firmly on a known if materialistic foundation. There was much religious disturbance in this case, which was purposely avoided. It grew out of the mind complex associated with the minister. The patient at once thought she saw the application of the Freudian principle to her case. I therefore picked out leading emotional experiences in her history, and asked her to write a letter two or three times a week elaborating upon the details of these experiences. I do not ask to see these letters unless the patient is willing, but the act of recalling and setting down the emotional episodes seems to be the best way of clearing the mental fog. The concentration necessary to accuracy frequently re-establishes the original emotional feelings, and makes the patient worse for the time. This fact aids in determining the importance of the experience to the normal harmony of the mind. The exacerbation is very transient, and the patient is soon better than before. Another great advantage of setting things down in black and white—is that sometimes the patient who thought her troubles

would "fill volumes" finds that a few paragraphs are sufficient to state all her ills, and this has a diagnostic value, for such cases are probably not hysterics, and not subjects for psycho-analysis;—they are mild cases of manic depression. It is important to determine this distinction early, as such cases are harrowed by the thought that possibly a sexual perversion is at the root of the trouble. It adds another excuse for worry and depression. The real case of hysteria will usually write long letters, setting forth the details of a blighted or ill chosen "affair" in vividly dramatic terms, though sometimes, it must be confessed, with an accuracy and discrimination which makes one doubt the correctness of the tact he has chosen. All hysterics are not dramatic, as the older teachers following Charcot would have us believe.

Another method by which the emotional complexes of the patient were determined was by means of the association test, a simple procedure which should be used oftener than it is. It requires only a stop watch, paper and pencil. A little experience allows one to pick out the significance of the delayed reactions, and a little questioning will usually elicit from the patient whether or not they have any important bearing.

The dreams, too, were of value in the case, and were frequently shown to symbolize suppressed desires. Especially did the minister come into the nightmares. Often her first cry would be "please don't kiss me; you ought not to," or "Oh, save (her baby sister) don't let them kill her." In talking with her she acknowledged that she loved the gentleman in question and that he had frequently kissed her. She desired this but felt it to be wrong, and had fought against it. Also that it was a frequent thought in the mind. The killing of the child symbolized an affair of her brother. He had got a girl into trouble and subsequently married her, but she had suppressed the desire that the child would die so that her brother's guilt might not be discovered.

At the same time that the snarled mental skein was being unravelled and rebuilt on a properly synthetized and exceptable basis, the physical conditions were being improved by baths, especially salt rubs and cold, wet mitt friction, massage and the electrical cabinet and shower, with regular periods of rest and exercise. The results justified the means. Sleep became quiet and restful, and dreams much less frequent and disturbing. The night terrors stopped, and for five months now at home this patient has been practically well. Of course she will always have a hysterical mental soil and may have relapses. She will also yield to less severe strain than her more fortunately born sisters, but she at least now knows how to protect herself and will be less likely to repeat the breakdowns because of the re-education she has undergone.

Dr. F. X. Dercun in a recent number of the *Journal of the American Medical Association* discusses and ridicules psycho-analysis in a scholarly manner. He says that the few good results obtained are due solely to suggestion, and that Freud's method succeeds only because it is new and bizarre and that the hysteric is always cured by such things until the newness wears off. I am willing to grant that the therapeutic result may be due to the suggestive effect, but I cannot but feel that from a purely psychological point of view Freud has given us an understanding of the emotions—and the motives behind acts which is far ahead of any we have heretofore possessed.

FIRST CALL FOR THE ATLANTIC CITY INSTITUTE MEETING.

To all those who would find an ideal recreation combined with a week of exceptional professional opportunities, as well as to be part of a great body of physicians who will be present at the greatest meeting the American Institute of Homœopathy has ever known, Atlantic City is the watchword. Other meetings have been good; but for many reasons the meeting of 1914 at Atlantic City is a vitally important one, and is expected to be the largest and best in the long history of the American Institute. Let us make the New England delegation the largest representation of the meetings. The Institute at present especially needs the support of every homœopathic physician in New England. Do not expect that the other man will go for you. Go yourself, and you'll not want to miss another.

Plans are already practically completed for the transportation of the New England delegation to the meeting. The trip will be made by Fall River boat to New York, with as many special cars (or a special train) as may be needed from Boston to Fall River and from New York to Atlantic City via Philadelphia. Transportation is under the arrangement of the Pennsylvania Railroad. At Philadelphia it is planned to meet the delegation from the West, and entertainment will be provided during a few hours by the Philadelphia physicians. The New England delegation will leave Boston (South Station) by Fall River boat train at 6 P.M., June 27 (Saturday), arriving at New York next morning at 7 o'clock. Leave New York at 8 A.M., and arrive at Philadelphia at 10 A.M. The trip to Atlantic City will be made in the late afternoon, exact time depending upon the plans of the Philadelphia and Western sections. Special rates will be in force, the round-trip fare from Boston to Atlantic City including parlor-car from Boston to Fall River and New York to Atlantic City being $14.25. Tickets at these rates may be secured after June 5 from the chairman of the Transportation Committee in New England, Harold E. Diehl, M.D., 1244 Hancock St., Quincy, Mass. Postal cards will be sent later to every homœopathic physician in New England, giving definite schedule-time, rates, and other information. Be ready to return the attached postal card to the Chairman of Transportation, stating that you will go. Plan ahead, and you will find that it will repay you many times.

HAROLD E. DIEHL. M.D.,
1244 Hancock St.,
Quincy, Mass.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

A SIGNAL TRIUMPH

Every homœopathic physician in the country will be interested in the news contained in the following letter:

"CHICAGO, April 18, 1914.

DR. DEWITT G. WILCOX,
419 Boylston St.,
Boston, Mass.

My Dear Doctor:—I take pleasure in informing you that the Board of Regents of the American College of Surgeons at its last meeting in New York unanimously recommended that the American Institute of Homœopathy be placed on the same basis as the American Medical Association, Clinical Congress of Surgeons of North America, and other associate societies. By referring to our directory or the circular I sent you recently, you can ascertain definitely what that relation will be. I am quite sure that with the unanimous recommendation of the Board of Regents there will be no difficulty in making the change in the constitution which will be necessary to bring this matter about.

I am writing this same information to Dr. James C. Wood.

With kind regards, I am

Yours very truly,
(Signed) FRANKLIN H. MARTIN,
General Secretary."

A brief review of the facts leading to this triumph may be interesting.

The American College of Surgeons was created in May, 1913. Its objects and aims were altruistic and utilitarian, and it bids fair to attain its avowed purpose. In the organization plan, the five hundred surgeons of North America who participated in the creation, were to act temporarily as a Board of Governors. These were to elect twelve of their number as a Board of Regents, who would be the real executive power of the College. This temporary Board of Governors, consisting of the five hundred founders, was to hold office until the annual meeting in 1914 at which time the number of said board would be reduced to fifty, selected according to the following plan: thirty of them to be elected from a list of nominations consisting of two members each nominated by the following named national societies:

American Surgical Association. Section on Surgery of the American Medical Association. Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association. General Surgical Division of the Clinical Congress of Surgeons of North America. Division of Surgical Specialties of the Clinical Congress of Surgeons of North American Gynecological Society. Southern Surgical and Gynecological Association. Western Surgical Association. Section on Surgery of the Canadian Medical Association. American Association of Obstetricians and Gynecologists. American Orthopedic Association. American Association of Genito Urinary Surgeons. American Laryngological Society. American Ophthalmological Society. American Otological Society.

The other twenty to be elected at large to represent surgeons of North America not affiliated with the above societies or associations. Such was the plan and such would have been executed had not there been an objection from the American Institute of Homœopathy. Amongst the half dozen or more homœopathic surgeons who were elected as founders at the organization of the College was one man who had a spinal column composed of real osseous material and not putty. He fully comprehended the ultimate scope and power of the College and he appreciated likewise the personal distinction of being selected as a founder. But to him loyalty to a Cause and regard for principle were of greater moment than personal aggrandizement. Dr. James C. Wood was no sooner made a founder than he began correspondence with the founder of the College, Dr. Franklin H. Martin, with a view to having the homœopathic school recognized in the College on the same basis as was the old school. About the same time and without knowledge of what Dr. Wood was doing two other homœopathic surgeons, (not founders) began the same campaign. These latter took up the matter direct with Dr. Martin on their way to the Denver meeting of the Institute, July 1913. Dr. Martin's answer to them was not at all reassuring. At the Denver meeting a resolution was passed creating a Committee with power to look after the interests of the homœopathic surgeons of the country and to secure if possible the same number of representatives on the Board of Governors for the Institute and its allied societies as was given the A.M.A. and other national old school bodies. Dr. Wood was made Chairman, and from that day until the present the Committee has worked indefatigably to secure just the one specific thing for which it was created; and now "glory be," we have it!

If any one imagines this has been an easy victory he has only to look over the voluminous correspondence carried on by the Chairman of the Committee and the President of the Institute

with the various members of the Regents and Board of Governors. There was a distinct and emphatic protest against recognizing anything having the word "homœopathic" in it because it savored of sectarianism.

In November, 1913, at the time of the Clinical Congress in Chicago, the Institute Committee was granted a hearing before the Regents of the College and there again stated in plain terms its request. And now to have our request granted by a unanimous vote of the Regent shows there has been a shifting of attitude on the part of the leaders of the old school toward homœopathy and we should welcome it not so much because it means an advantage to us, but rather because it shows the spirit of fair mindedness and the obliteration of old time prejudice and bigotry, which the advance guard of the dominant school has exhibited. It certainly is encouraging for the dawn of better days in medicine when men of high attainments and great power can get the open vision and welcome fellow workers of equal ability though of different ideas.

The fight has been for "principle" and we should keep that clearly in mind. At no time has the College of Surgeons shown the least disposition to discriminate against the *individual* surgeons of the homœopathic school. In their desire to show no prejudice they have almost erred in a willingness to admit any surgeons of our school. But the point for which the Committee has striven was not a *personal* one but a *basic* one, namely, the recognition of the American Institute of Homœopathy on exactly the same plane as the A.M.A. is recognized. It was a just demand, and from it the Committee has never wavered.

The fulfillment of the agreement will require a little re-adjustment of the constitution, which will be done at the next meeting, namely, placing the three societies of the Institute, the Surgical and Gynecological, the Obstetrical and the Ophthalmological and Otological, on the recognized list of National Societies entitled to representation. This will give us six men out of fifty on the Board of Governors. It will be up to these six to see that we have at least one or more members on the Board of Regents.

THE NURSES' POINT OF VIEW.

Dr. Samuel Elliot speaking impromptu at a convention held at the Psychopathic Hospital to discuss the methods of obtaining a higher standard of nursing in mental diseases, on February 16th last, told the following story:—

During my trip around the world I was seized with a severe attack of appendicitis which required an operation and necessitated hospital care. One day while convalescent I was reclining in a steamer chair on the veranda, when a strong athletic fellow

who had delirium tremens broke out of his room, in spite of his two colored male attendants, and staggered towards where I was sitting. I was too weak to move and so was naturally terrified by the approach of the man in so threatening an attitude. He staggered to my chair in spite of the efforts of the two attendants, and thrusting out his hand said—"I want to shake hands with you." At this juncture a bright eyed, alert little nurse rushed out of the door and placing herself in front of the maniacal man, quietly but firmly commanded him to go back to his room. She did not lay hand on him, but he immediately turned about and did her bidding. Tact and courage are essential in mental nursing. We need more of such women. As usual Dr. Elliot summed up the question well. The nurse was able to understand the case, she had the right point of view, and so could accomplish that which the more obtuse attendants, with all their physical strength, were wholly unable to do.

The meeting was especially interesting because it brought out so strongly how very confused, unorganized and divergent are the ideas regarding mental nursing, of even those whose experience and usual trend of thought should best fit them to speak.

The burden of the chairman, Dr. Walter Channing's, introductory remarks was that nurses in the State hospitals are underpaid, and that the legislature should allow more money for the purpose. We agree with this statement in the main, but believe that there is a more important point, and that is the attitude of the hospital staff towards their nurses. Dr. Adler brought this point out in an excellent, brief talk in which he said that if we would get better coöperation and intelligent work from our mental nurses, we must cease to regard them in the light of help to be worked, suspected and prosecuted, thus encouraging the hiding of facts which might be interpreted as derogatory to the nurse, and substituting for this attitude one of the teacher and co-worker who looks upon all reports and facts as of interest, tries to explain them, and thus assist the nurse to a better point of view. This attitude we believe is far more important than any money compensation, for we have proved it in practice.

Two nurses spoke, Miss Adelaide Nutting and Miss Mary L. Gerrin, R. N. The former told what she conceived to be the requisites of a mental nurse, acknowledging it a higher type of work than general nursing. Both of these women, as would be expected from their training, believed that it should be made a post graduate course to consume from three months to a year. This we believe is a mistake, though the natural deduction from the road they have travelled.

But what constitutes a good nurse? Is it not her ability to individualize and understand her patient and to surround her with all things, mental as well as physical, which may conduce to a rapid and comfortable convalescence? And is not the right point of view here the first essential? Every superintendent of a training school will acknowledge that all the technical and book knowledge that a nurse gets in her three years training could easily be put into a year and learned the better for it. Is not the main reason then for keeping a girl three years in the hospital, apart from the hospital's own interests, to give her the right point of view of sickness. But what does the general hospital do for the nurse to aid her to the point of view, in its curriculum? Absolutely nothing, save perhaps a few talks on nervous diseases. We have asked many graduate nurses what they knew about caring for nervous and mental patients, and the almost universal reply has been—"I don't know anything and I don't want to."

In the conference under discussion, it was brought out by several speakers that the general hospital trained nurse is quite useless for mental nursing, until she has undergone special training, which she rarely has patience or sufficient insight into its importance, to do. This entirely coincides with our own experience. She has spent three years of patient drudgery and self-sacrifice to learn an honorable profession and in loyality to her alma mater believes that it has taught her all that she ought to know about that profession; but has it? Are not many of her patients in general practice as likely to have nervous symptoms as part of a medical or surgical illness or as the leading role of the sickness? The importance of the mental attitude of the patient in influencing illness is constantly looming larger on our medical horizon and coming to play the major roll in many conditions once regarded as physical. Can the nurse who has not been given the right point of view towards this aspect of her patient's illness do the best work for her patient? Has the nurse not the right to demand this sort of instruction as part of her essential preparation? We believe so.

The weight of discussion of the conference centered about the nursing of the acute mental states, the desire of the speakers being to develop a type of nurse who would be of greater assistance to them in the observation and recording of symptoms. This presupposes some instruction in psychology and psychotherapeutic methods, and we believe every nurse should receive such instruction as the basis of the right point of view.

Dr. E. E. Southard advocated the establishment of a curriculum and wage scale on the same basis as the general hospital, thus doing away with the idea of pay, and emphasizing the school

element. This, he pointed out, would permit better salaries for the head nurses. With this idea we entirely agree.

Dr. R. H. Steadman advocated the dropping out of much semi-medical material now taught, and its replacement by emphasis on the useful and entertaining qualities,—hand craft, reading aloud, etc. He pointed out that much could be done to redevelop the apathetic and perverted mind by such a course. Of this latter part we also approve, though we would not curtail the book work. Personally, we would advocate taking young women at an early age, as young as nineteen years, and giving them the mental and nervous training first while they are most docile and adaptive. After two years of such training, during which time they might receive the entire book work of the course, they should go to a general hospital for one or two years, which time could be determined by the management of each particular hospital, and designated on the diploma. This work should be almost entirely clinical. This arrangement would, we believe, produce the most useful and all-round nurse.

A. H. R.

SOCIETIES.

Massachusetts Homœopathic Medical Society.

The Seventy-fourth annual meeting of the Massachusetts Homœopathic Medical Society was held on Wednesday, in the morning, April 8, at the Massachusetts Homœopathic Hospital, and in the afternoon at the Evans Memorial.

The morning session was devoted to clinics held in the Hospital amphitheatre. They were well attended and were well worth attendance.

Luncheon was served in the Medical School at noon and was followed by a session in the auditorium of the Evans Memorial Building devoted to the question of Municipal Milk. The following papers were presented:

Three Ways to Keep Babies Well in Boston. Mr. George R. Bedinger, Director of the Milk and Baby Hygiene Association.

How Municipal Milk is Handled at the Farm. Mr. R. W. Bird, of the Waveney Farm, Framingham, Mass.

Some Suggestions for Improving Milk for the Municipal Supply. Stephen H. Blodgett, M.D., Boston.

Discussion of these papers by Drs. Roberts, Walkley, Suffa, Mr. Breed, of Baron's Farm at Cohasset, and others, brought out important points in this question of clean milk.

Mr. Bird's paper was especially interesting. Himself a business man, not dependent upon his farm for his livelihood, he gave a most graphic description of the difficulties a farmer must face in producing clean milk and yet making a living, at the current prices of milk. Mr. Bird made use of stereopticon pictures to show milk farms as they should be, and as they should not be.

The business session was devoted to routine business including the reports of the various committees, which were especially interesting this year.

Elizabeth Hirst, M.D., and Nathan R. Sylvester, Jr., M.D., both of Somerville, were elected members of the Society.

The Election Committee reported the following list of officers for the ensuing year: President, Thomas E. Chandler, M.D.; first Vice-President, Amanda C. Bray, M.D.; second Vice-President, Harry J. Lee, M.D.; Recording Secretary, Edward S. Calderwood, M.D.; Corresponding Secretary, Benjamin T. Loring, M.D.; Treasurer, Thomas M. Strong, M.D.; Chairman of Board of Censors, George R. Southwick, M.D.

Two hundred members were present at the dinner at Young's Hotel. Dr. Plumb Brown gave the presidential address. Drs. T. E. Chandler, J. P. Sutherland, J. Emmons Briggs, and DeWitt G. Wilcox made short talks. The speaker of the evening was Arthur A. Ballantine, member of the Boston Bar, and his oration could be listed as a classic.

E. S. Calderwood, M.D., Secretary.

BOOK REVIEWS.

Case Histories in Pediatrics, second edition, by John Lovett Morse, M.D., Assistant Professor of Pediatrics, Harvard Medical School. W. M. Leonard, Boston, publisher.

Dr. John Lovett Morse, Assistant Professor of Pediatrics, Harvard Medical School, has favored the profession with a second edition of his "Case Histories in Pediatrics."

In this edition the number of case histories has been doubled, and there has been added an introductory section on "The Normal Development and Physical Examination of Infants and Children" which, in fifty pages, presents this subject in a concise and practical manner.

To those not conversant with the first edition of the book a general outline of the subject-matter will be interesting.

All cases are ground into classifications in which they naturally belong, *e. g.* Diseases of the New-Born, Diseases of the Gastro-enteric Tract, etc., and their location in the book admirably designated by an intelligent Table of Contents and complete Index. The cases are numbered in the order of their appearance, there being in all two hundred, and all from the records of the author, and then follows a short and concise history of the case, and next, the results of the physical examination are presented in a way indicating a thorough examination of the case. Then follows the Diagnosis, Prognosis and Treatment of the case.

No mention, or even suggestion, of the nature or name of the disease is made or given until after the whole picture of the case has been graphically presented, thus allowing the reader to first make his own diagnosis and then to back it up, or back it down as the case may be, by the diagnosis of the author. In this, to the reviewer's mind, lies the chief charm of the book; inasmuch as while the reader is leading himself up to his own diagnosis he is conscious of indulging in a sort of game of Medical Bridge, as he is playing up to see whether his diagnosis will tally with the correct diagnosis of the author.

As to the correctness of the diagnosis of the cases from the author's point of view, no one will doubt it who is conversant with the care and thoroughness characteristic of the author in examining his cases.

The general treatment of the cases is presented in an unusually rational manner.

So far as drug treatment is concerned, while a reader who is conversant with the curative effects of many remedies which could have been used in many of the cases presented, provided they had been prescribed in accordance with the homœopathic principle of therapeutics, is impressed with the paucity of curative remedies prescribed in these case histories, on the other hand the author is to be congratulated upon condemning in no uncertain terms the use of such palliative drugs as would act on the case in a harmful manner.

Case Histories in Pediatrics should be upon the shelf, and often on the table, of every physician aiming to perfect himself in the diagnosis of Diseases of Children.

Operative Surgery. For Students and Practitioners, by John J. McGrath, M.D., Clinical Professor of Surgery, Fordham University; Professor of Operative Surgery, New York Post-Graduate Medical School; Consulting Surgeon to the People's Hospital; Visiting Surgeon to the Harlem and New York Foundling Hospitals; Fellow of the New York Academy of Medicine; Member of the American Medical Association. Fourth revised and enlarged edition, with 364 illustrations, including full-page color and half-tone. Philadelphia, F. A. Davis Company, publishers, 1913. Cloth, $6.00; Half Morocco, $7.50 net.

In the third edition of this work the author has given the profession a concise, accurate and dependable volume on general operative surgery. It is highly desirable to have at hand a condensed work on general operative surgery which gives in a few descriptive sentences the essentials of an operation. The author has stuck to his text in making it a work on "Operative Surgery." He has not encumbered it with the etiology, and symptomatology of the surgical lesion under consideration; nor has he padded it with the after treatment, all of which can be found in other works. It is essentially the description of the operative procedure, and very helpful. The print and paper are of the best. Taking it from cover to cover it can be called a practical modern treatise of the recognized and dependable methods of surgical procedure.

Surgical Diseases of Children. A Modern Treatise of Pediatric Surgery. By Samuel W. Kelley, M.D., LL.D., Honorary Professor of Surgical Diseases of Children, Medical Department, National University, St. Louis; Pediatrist and Orthopedist, St. Luke's Hospital, Cleveland: Formerly Professor of Diseases of Children, Cleveland College of Physicians and Surgeons, Medical Department, Ohio Wesleyan University. Illustrated. Second edition, revised and enlarged. E. B. Treat & Company, New York, 1914. Price, $5.00.

When Dr. Kelley brought out his first edition of Surgical Diseases of Children we felt that he supplied a missing link to the volumes devoted to general surgery. The manner in which it was received has fully justified the second edition. There can be no question but that there is a wide gap between child-surgery and adult surgery; between child pathalogy and adult pathology. If we could have Lilliputians with Lilliputian instruments operate upon babies we would be giving the babies a more nearly equal chance with the adults. But to operate successfully on these little ones a surgeon must become a Lilliputian in manipulation and instrumentation.

The author shows himself master of the subject by the manner in which he takes up the details of his subject. The work has a distinct place in surgical literature and becomes a valuable addition thereto.

The Practice of Pediatrics. By Charles Gilmore Kerley, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia and London, W. B. Saunders Company, 1914. Cloth, $6.00 net; half morocco, $7.50 net.

Notwithstanding the number of works recently published on Pediatrics there is something new to be said with every late issue This is called the Children's Age, and one of the reasons that it is so called is because of the study, physical, mental and moral, which has been given the child.

The work is an up-to-date treatise on the etiology, symptomatology, and diagnosis of diseases of children. The hygienic, dietetic and mechanical treatment is most excellent. But when it comes to internal treatment it is lamentably lacking in that it has absolutely nothing to offer. If the seeker after facts wishes to find how miserably poor are the old school physicians in the possession of drugs for the relief of acute ailments, especially in children, he need but scan this book and look under the head of "treatment." The one redeeming feature under that head is the oft repeated statement, "In any disease a great deal of harm may be done young children by the thoughtless use of drugs." Excellent! But why not go a step further and tell his readers just what remedies *can* be given with the utmost assurance

that no harm will result and an *oft repeated demonstration that cures will follow such administration?*

Think of it; you scientific homœopathic prescribers who get your result in treating acute ailments of children in ninety-five per cent of cases! Giving Dover's powders and one and one-half grains of phenacetin and one-half grain of caffein, one-hundredth grain of strychnin and strophanthin for children suffering from broncho-pneumonia! Shades of Hahnemann! "Do the world move or do it not?"

Specific Diagnosis and Specific Medication. By John William Fyfe, M.D., formerly Professor in the Eclectic Medical College of the City of New York. A thorough work on specific medication, embodying the work of the late John M. Scudder, M.D. Second edition, 8 vo., 784 pp. cloth $5.00, sheep $6.00, J. K. Scudder, Publishers, 630—W—6th st., Cincinnati, Ohio.

This book embodies Scudder's two books "Specific Diagnosis" and "Specific Medication," the writings of many recent writers and the personal observations of the author. It takes up many of the minutiae of subjective symptomatology—an important branch of medical diagnosis which has unfortunately been neglected in these days of laboratory methods—in an instructive manner. The pages on physical diagnosis incorporate many important facts, although division for purposes of ready reference might have been more satisfactory.

The second part of the book is concerned with a discussion of some hundreds of medicinal agents, which embraces a brief epitome of their pharmacologic action and general indications for their uses.

MEDICAL JOURNAL REVIEWS.

The Homœopathic World, March, 1914.

1. *Intellectual Difficulties of Homœopathy.* Rev. E. E. Iungerich and T. M. Neatby, M.D.

The argument of Rev. Iungerich against homœopathy is, as usual, among the dissentients, chiefly based upon the fallacy of infinite divisibility. It is, of course, wholly beside the point. His version of Hahnemann's cinchona experiment is highly novel but disingenuous and his philosophico-religious quotations lack authority though abounding in obscurity of meaning.

1. *Two cases of Chronic Eczema cured by Injections of Isotonic Sea Water.* A. G. Sandberg, M.D.

The Journal of the American Institute of Homœopathy. March, 1914.

1. *Lane's Kinks.* D. G. Wilcox, M.D.

The symptomatic resemblance between appendiceal trouble and an adjacent kinking of the ileum is frequently so close that the incision should be sufficiently large to allow exploration of the ileum as well as the gall-bladder, and in women, the right ovary.

2. *Cancer of the Ovary with Rupture. Child of Eight Years.* C. W. Perkins, M.D.
3. *Hydrastis Canadensis.* H. F. Biggar, M.D.
4. *X-Ray Treatment of Skin Cancer.* E. H. Grubbé, M.D.
5. *Area Analgesia by Freezing.* W. A. Guild, M.D.

"If neuralgia is of peripheral origin, the pain will disappear upon freezing the surface nearest its point of origin. If central it will persist."

Locate the sensitive area with some blunt instrument, mark it indelibly so that it may be readily found at subsequent treatments, and freeze with an ethyl chloride spray until the skin whitens. Then continue the freezing with an ether spray which is cheaper and does not cause desquamation. Freeze solidly for from three to eight minutes, cover with cotton, and it remains frozen from ten to fifteen minutes.

6. *Is Diagnosis a Necessity in Order to Apply the Remedy Homœopathic to the Case?* E. P. Mills, M.D.

Diagnosis, as Dr. Gregory brings out in the discussion, is necessary in order to attain the best results in the practice of medicine. In many cases, however, the answer to the question is no.

7. *Pan-Russian Homœopathic Congress at St. Petersburg.* Reported by E. P. Hoyle, M.D., Hon. Sec'y International Homœopathic Council.

S. B. H.

The Medical Century. March, 1914.

1. *Remarks on Uterine Cancer.* N. T. B. Nobles, M.D.
2. *An Interesting Case of Spina Bifida.* G. H. Davies, M.D.
3. *Monstrosities and Modern Obstetrics.* W. L. McCreary, M.D.
4. *Tuberculosis of the Right Hip Cured Homœopathically.* N. Campbell, M.D.

Syphilinum was the principal remedy used.

5. *Obstetrics.* H. G. Bond, M.D.

This brief article on such a huge subject discusses a few of the frequent and benign complications and mentions remedies which are said to be useful in such conditions.

6. *Puerperal Sepsis.* H. E. Koons, M.D.
7. *What is the Standard of Human Efficiency and How Shall We Measure Efficiency?* F. F. Cassiday, Ph.B., M.D.

This historical review and philosophical discourse is concluded with the statement that "any movement to increase human efficiency mentally, morally or physically will fail to uplift humanity unless real human coöperation is secured and our present competitive system is utterly destroyed."

8. *An Atypical Case.* S. Leavitt, M.D.

A gastroenteritis simulating cholecystitis.

9. *The Magnetized Club.* R. del Mas, Ph.D., M.D.

The connection between the title and the subject matter is rather vague. Del Mas outlines the symptomatology of Phosphorus, Calcarea, Lachesis and Silica.

S. B. H.

The Medical Advance. March, 1914.

1. *The Medical Examination of School Children.* J. B. S. King, M.D.

King argues against such examination, and makes the statements that it is an invasion of the rights and duties of parents; it is a violation of personal liberty; it has proved ineffective; it inevitably tends toward compulsion; it leads easily to abuses; it has a bad effect upon the child and home influences.

[Reviewer's Note] We recall reading some time ago an article of similar fundamental *motif* entitled "The Holocaust of the Open Window." This article was also in the Medical *"Advance."* Of course no measure for preventive medicine was ever formulated but that it could be subjected to captious criticism. It is, however, unnecessary to condemn such a measure in toto simply because there are difficulties to be overcome in putting it to the practical test. There has not yet been a suspension of transatlantic commerce for the reason that the Titanic sank.

2. *Medical Ills from the Theory of Repression.* G. B. Stearns, M.D.

Reprinted from the North American Journal of Homœopathy.

3. *Dangers of Ozone in Purifying the Air.* Prof. R. B. Smith.
4. *Is Cancer Curable?* H. B. Stiles, M.D.

Stiles replies in the affirmative, the method being to use the homœopathic remedy. His patients received 30x—5m. Unfortunately the diagnoses are "say-so" and not reported as confirmed by miscroscopic examination.

5. *Several Remedies.* R. F. Rabe.

The Hahnemannian Monthly. February, 1914.

1. *Hygiene of the Skin.* P. H. Ealer, M.D.

Ealer's remarks are confined to the anatomy and physiology of the skin.

2. *The Work of the United States Public Health Service in the Domain*

of Sanitary Science. W. G. Stimpson, Surgeon, U. S. Public Health Service.

Stimpson outlines the work done along the lines of sewage disposal, yellow fever, plague, pellagra, poliomyelitis, leprosy, etc.

3. *The Theory of Water Purification and Sewage Disposal.* F. F. Massey, M.D.
4. *The Care of the Perineum During Labor.* E. A. Krusen, M.D.
5. *The Physiological Testing of Heart Tonics.* W. A. Pearson, M.D.

As Pearson says, such a title as "The Pharmacologic Standardization of Drugs Having a Particular Action on the Heart" would be far more fitting and correct.

6. *A Few Thoughts upon Chronic Suppurative Otitis Media.* J. V. F. Clay, M.D.
7. *Affections of the Lachrymal System.* P. A. Tindall, M.D.
8. *Moral Degeneracy and Trephining, with Especial Reference to Nymphomonia.* H. L. Northrop, M.D.

S. B. H.

The Hahnemannian Monthly. March, 1914.

1. *Vaccines in Typhoid Fever.* S. W. Sappington, M.D.

A brief report of eleven cases and a partial review of the literature.

2. *The Psychology of Superstition.* F. F. Massey, M.D.

"Superstition is the result of lack of mental training, ignorance, physical conditions—eye, ear, etc., and insanity to a greater or lesser degree."

"Teach how to overcome the tendency by becoming logical—not skeptical."

3. *The Relation of the Eye to Diseases of the Kidney.* W. M. Hillegas, M.D.
4. *Phlyctenular Ophthalmia.* S. B. Moon, M.D.
5. *A New Incision for Extraction of Hypermature Cataract.* J. K. M. Perrine, M.D.
6. *Psychology of Defective Vision in the Elderly and Aged.* H. W. Champlin.
7. *Report and Discussion of a Case of Ocular Vertigo.* G. W. Mackenzie, M.D.
8. Discussion of Papers Previously Published.
9. Bureau of Medical Education and Licensure of the State of Pennsylvania. Drugless Therapy.

S. B. H.

The Clinique. February, 1914.

1. *Poliomyelitis—Some Conclusions Drawn from Recent Studies.* J. P. Cobb, M.D.

Published in the Medical Century, January, 1914.

2. *Malignant Tumors of the Breast.* H. R. Chislett, M.D.
3. *Self Help in Gynæcology.* S. M. Hobson, M.D.

The author prophesies that "pelvic disorders will be correlated with systemic conditions and the whole worked out with systematic recuperative measures, aided by posture, freedom of muscular movement, regulation of work, relaxation and nutrition." The problem is to "arouse in the patient a disposition to recognize and control the psychic as well as the physical factors."

4. *Cancer of the Head, Face and Neck.* G. M. Cushing, M.D.

Such cancers offer opportunities for early recognition; for removal of involved lymphatic glands; and there is but slight tendency to metastasis to vital organs.

5. *A Faith Cure.* S. Leavitt, M.D.

The case was one of obturator neuritis and the duration somewhat more than three years.

6. *European Experiences.* B. A. McBurney, M.D.

Most of this article is given over to a discussion of cancer.

7. *Prescribing.* C. A. Weirick, M.D.
8. *Benzol in the Treatment of Leukæmia and Pseudoleukæmia.* H. V. Halbert, M.D.
9. *The Urine in Skin Diseases.* C. Mitchell, M.D.

S. B. H.

The Clinique. March, 1914.

1. *The Early Diagnosis of Paresis.* F. W. Wood, M.D.

Wood summarizes the procedure as follows: A careful analysis of the mental and physical condition; a blood analysis and a blood Wassermann; a serological examination of the cerebro-spinal fluid including cellular elements, albumin content and Wassermann.

The article is marred by the altogether too frequent appearance of misspelled words such as Leuccoytes, compliment, percipitate, pacalysis, phychiatic, etc.

2. *Albuminuria in Prègnancy.* G. Fitz-Patrick, M.D.
3. *Albuminuric Retinitis.* E. J. George, M. D.

The following rules are from Weeks. 1. If albumin appears in the urine of a pregnant woman, the eyes should be examined from time to time with a view to determining the condition of the retina.

2. If retinitis occurs before the sixth month, premature labor should be induced. If it does not occur before the eighth month, an attempt to tide the patient over to full term should be made.

3. The appearance of retinitis between the sixth and the eighth month indicates the induction of premature labor only if the vision is impaired (to prevent blindness) or if the amount of albumin excreted is large and the quantity of urea is small.

4. *Personal Experiences with Homœopathic Materia Medica.* E. A. Sickels, M.D.

S. B. H.

The North American Journal of Homœopathy. February, 1914.

1. *The Unity of Medicine.* C. Beck, M.D.

A historical sketch of the development of the studies of anatomy, physiology and pathology and their interrelation.

2. *Treatment and Surgery of the Accessory Nasal Sinuses for the Relief of Ocular Diseases.* J. I. Dowling, M.D.
3. *The Homœopathic Treatment of Typhoid Fever.* J. Hutchinson, M.D.

Previously published in the Medical Advance, Nov., 1913.

4. *How Should Materia Medica be Taught?* W. W. Van Denburg, M.D.

"Every lesson after the first year should be a clinical lesson." "Three years of active prescribing under an expert, coupled with the daily use of the text books, would turn out a different class of men from that annually sent forth from our medical schools."

5. *The Therapeutics of Constipation.* E. H. Lutze, M.D.

Lutze gives copious indications for nearly a score of remedies useful in this condition.

6. *Skin Manifestations of Disease in Children.* C. E. Burt, M.D.

This article was published in the Journal of the A. I. H. for September, 1913.

[Reviewer's Note] We observe again such gems of oracular wisdom as the following. "Jaundice is only a symptom and may be due to a number of different causes." "Sweating of the head is a frequent symptom of rickets." "Oedema may be either general or local." "Calluses usually indicate work or wear." Such sapience avoids controversy.

7. *Nitrous Oxide and Oxygen Anæsthesia.* R. P. Miller, B.S., M.D.

Published in the Journal A. I. H. for February, 1914.

8. *A Case of Acute Toxic Polyneuritis.* C. L. Bailey, M.D.

Plumbism is given as the cause. "My treatment of this patient was strychnia hypodermatically 1-30 grain three times a day, and massage of the muscles."

[Reviewer's Note] In our estimation, the use of strychnia in such a case and such dosage, would be of about as much benefit to the nutrition and regeneration of the motor cells and their neurones as would a half hour of the tango "three times a day" in a recent Pott's fracture.

S. B. H.

The North American Journal of Homœopathy. March, 1914.

1. *The Press, the Public and the Medical Profession.* S. H. Blodgett, M.D.

"Medical men are at fault in refusing to consider seriously a piece of

medical news just because it is printed by the medical press. The city reporter sends an expert to cover a murder, but the novice is usually assigned to interview the medical discoverer. The ideal state of affairs would be where the editors and physicians, having both proved themselves reliable and conscientious investigators, do their best to help each other, and then, together to help humanity."

2. *Helps and Hints in Handling the Psychoses.* J. R. Horner, A.M., M.D.
3. *Psychotherapy.* J. H. Storer, A.B., M.D.
4. *Mental Ills Considered from the Standpoint of Sigmund Freud's Theory of Repression.* G. B. Stearns, M.D.
5. *Two Cases.* D. R. Grover, M.D.
6. *Grain Itch, Its Recognition and Treatment.* R. Bernstein, M.D.

S. B. H.

The Pacific Coast Journal of Homœopathy. February, 1914.

1. *Menorrhagia, Uterine Hæmorrhagia, and Their Therapeutics.* A. J. Minaker, M.D.
2. *Two Atypical Cases of Appendicitis.* F. S. Barnard, M.D.
3. *Some Abuses of Public Hygiene.* H. M. Bishop, M.D.

[Reviewer's Note] Bishop lauds variolinum 6x as a prophylactic and therapeutic agent in small pox. His arguments against vaccination are neither definite nor convincing. He falls into the error, so common among antivaccination champions, of decrying the value of statistics which uphold the practice of vaccination, yet using statistics to prove his own contentions. His statement that "the process of cultivating the immunizing antibodies has engendered a dyscrasia and awakened a diathesis which offers the only explanation of the alarming . . . increase of carcinomatous affections of late," savors much of conjecture.

4. *A Case of Hysterical Blindness.* F. B. Kellogg, M.D.
5. *Nux Vomica in Heart Diseases.* S. S. Salisbury, M.D.
6. *An Open Letter to the Governor of California.* G. P. Waring.

In this epistle the farcical and discriminatory character of the "oral, practical, and clinical examination" given under the direction of the "Medical Trust."

7. *Exophthalmic Goitre.* J. S. Hunt, M.D.

S. B. H.

The Pacific Coast Journal of Homœopathy. March, 1914.

1. *Treatment of Malaria by the Potentized Remedy—Report of Cases.* L. C. Smith, M.D.

[Reviewer's Note] The report would be of very much more worth did the microscopic corroboration of the diagnosis appear with the clinical notes. The value of such a report would be tremendously enhanced if a parallel series of cases treated with quinine might be published coincidentally. Smith remarks that the potency question is foreign to the question.

2. *Arsenicum Iodide in Coryza.* H. F. Bishop, M.D.
3. *Cerebral Decompression for Paralysis with Spasticity.* O. G. Freyermuth, M.D.
4. *There is No Darkness but Ignorance.* J. A. Reily, M.D.

A plea for asexualization of the defectives.

5. *The Role Played by the Nose and the Mouth in the Etiology of Tuberculosis.* H. Stillson, M.D.
6. *The Relation of the Sanitarian to Vocational Guidance.* W. Simpson, M.D.
7. *Some Observations Regarding Potency.* J. T. Martin, M.D.

[Reviewer's Note] These observations are fragmentary, chiefly traditional, supported by analogy and the report of two cases; one of typhoid fever which received a high potency vaccine, apparently at the fastigium, and followed the normal course of recovery in the common abortive cases.

S. B. H.

The British Homœopathic Journal, March, 1914.

1. *The New Knowledge of "Life" and the New Therapeutics.* C. W. Hayward, Barrister at Law, M.D., C.M., D.P.H., M.R.C.S., L.R.C.P.

In this 32 page article are reviewed many of the new and seemingly disconnected discoveries and theories of modern science, and the effort is made to show that this new knowledge partially explains the "how" and "why" of the application of *similia similibus curentur*, and that it tends to *confirm* that principle.

2. *Homœopathy or Psychotherapy.* H. P. Fairlee. M.D.

Fairlee gives his reasons for discontinuing the practice of homœopathy. His chief reason is his disbelief in the theory of potentization. Even though he is now an alien from homœopathic ranks he is to be congratulated for having *experimented* before dissenting.

3. *Homœopathy or Psychotherapy— A Reply.* T. M. Neatby, M.A., M.D.

Neatby shows very truly that Fairlee made no reference or experiment which concerns the principle of similars. It is incontestible that the title of Dr. Fairlee's paper should have been "The Higher Potencies, or Psychotherapy."

"If Dr. Fairlee has proved anything by his year's experiment, he has only proved the futility of the 'high potencies.' But *homœopathy* stands where it did."

S. B. H.

The Ophthalmic Record, April, 1914.

A Chicago newspaper states that a spark from an electric arc ignited a celluloid eyeshade worn by a workman, causing burns that resulted in the man's death. This story reveals a danger involved in the use of a very common form of protection to the eyes.

An interesting revival of an ancient and absurd superstition is indicated in an item from Aurora, Ill,. according to which, a photograph was taken of the eye of the victim of a recent murder mystery with a view to finding upon the retina the image of the last object seen before death, thus identifying the murderer. The item states that the picture was taken by the advice of an oculist.

The Ophthalmic Record, April, 1914.

The Nature of Trachoma. By Wm. H. Crisp., M.D., Oph.D. (Colorado), Denver, Colo.

"Notwithstanding a great deal of patient experimentation and histologic study, it is doubtful whether our present knowledge concerning trachoma is greatly superior to that of half a century ago. We have apparently satisfied ourselves that trachoma is a contagious disease, but the same might have been said of most of the early modern writers on ophthalmology. We are a little more positive as to the position of trachoma as a distinct disease entity than were those earlier workers. But we do not yet know what microorganism is responsible for this specific disease. We are not even agreed as to the microscopic details which distinguish trachomatous tissue from that of several other pathologic processes occurring in the subconjunctival structures. We are at a loss to explain the basis of the relapses and recurrences to which are subject many of the patients who have once suffered from trachoma. And we are frequently unable to state positively whether a given case is or is not one of trachoma.

The ancient Greeks and Romans both described the disease. According to Hirschberg, watery eye produced by trachoma was noticed by medical men 3,400 years ago. It has been repeatedly stated that Napoleon's Egyptian army scattered trachoma over the countries of Europe. But J. Beer described trachoma in Vienna in 1792, and it must have existed in many parts of Europe long before the Egyptian campaign. The earlier writers, however, usually described trachoma rather as a symptom, which might result from several diseases than as a separate disease. The fourth edition of William Mackenzie's work on the diseases of the eye, published in 1854, describes trachoma under the title of 'Granular Conjunctiva.' . . . . . ."

D. W. W.

PERSONAL AND GENERAL ITEMS.

Dr. Bertha Cameron-Guild (B. U. S. M. Class of 1911) is giving up private practice in Manchester, N. H., where she has been located for the past two years, and is opening a Summer Camp for little girls, in Dunbarton, New Hampshire.

Dr. C. Gurnee Fellows of Chicago will move his office on May first from the present location in the Marshall Field Building to the Michigan Boulevard Building, 30 N. Michigan Boulevard, at the corner of Washington Street.

Dr. H. E. Whitaker, after a term of service at the Massachusetts Homœopathic Hospital, has begun practice in Gloucester, Mass.

Dr. Ida Badanes, class of '97 B. U. S. M., is located at 225 Broadway, New York City.

Dr. Conrad Wesselhoeft, 2nd, sailed from Portland, Maine, on April 11th for a two-months trip to England and Germany. He expects to return to Boston early in June.

FOR SALE—Furnishings of the office of the late Dr. A. H. Tompkins, at 20 Seaverns Ave., Jamaica Plain, Tel. Jamaica 28. 1 Flat-top Desk with six drawers and double drawer stocked with medicines; 1 Examining Table; 1 Vibrator and Stand, Emerson Elec. Mfg. Co., speed 3450 RPM, No. 301243, Type No. 224, Volts 104, Watts H. P. 1-10 for 7200 alts. per min. 1 Revolving Chair, 1 Wernicke "Elastic" Bookcase, 5 sections; Surgical Instruments. 1 "slip repertory."

Dr. James D. Christie, B. U. S. M. 1908, has been appointed school and town physician of Littleton Common, Massachusetts, where he is located, and also a member of the local Board of Health.

Dr. Hervey B. Pitcher, B. U. S. M. 1908, of Leominster, Massachusetts, is a member of the Board of Health of that city.

Dr. William H. Dieffenbach has removed his office from 1748 Broadway to "The Rutland," 256 West 57th St., New York City. Hours: 9 to 12 in the mornings. X-ray laboratory open 9 A.M. to 5 P.M.

Dr. John R. Noyes, B.U.S.M. 1904, has been elected president of the Brockton (Mass.) Medical Society. Dr. Noyes specializes in diseases of the eye, ear, nose and throat in that city.

Miss Reid will hereafter have accommodations for one or two convalescent or chronic patients in her hospital at 286 Newbury St., Boston.

OFFICE FOR RENT.—For rent at 502 Beacon Street, corner of Massachusetts Avenue, Boston, a physician's office, thoroughly equipped with electricity and every convenience and large connecting room for waiting room. Apply to Dr. Jordan, as above, or telephone Back Bay 3135.

RECENT DEATHS.

Hiram L. Chase, M.D., died at his home in Cambridge, Mass., on April 24, in his 89th year. He was born in Boston, May 19, 1825, and was graduated from the Harvard Medical School in 1846, and studied Homœopathy with Dr. Samuel Gregg of Boston. He was a member of the Massachusetts Homœopathic Fraternity, and was elected Secretary in January, 1847, which office he held for five years. After the formation of the Boston Academy of Homœopathic Medicine, he was its Secretary for two years.

He was one of the organizers of the Massachusetts Homœopathic Medical Society, and its President in 1868. He joined the American Institute of Homœopathy in 1847 and at the time of his death was its oldest member, and one of its Honorary Presidents.

Dr. Leila G. Bedell, B. U. S. M. 1878, for many years a practitioner in Chicago and for ten years a resident of Tryon, North Carolina, died at the last named place on March 28, at the age of 76 years.

Dr. Charles Emery Rowell, N. Y. Hom. Med. Coll. 1875, died at his home in Stamford, Conn., on March 29, aged 64 years. Dr. Rowell was a member of the Connecticut Legislature in 1897 and mayor of Stamford from 1910 to 1913.

Dr. Samuel H. Sparhawk (Homœopathic Hospital College of Cleveland, 1865) died at his home in St. Johnsbury, Vermont, on March third, at the age of 73, from cerebral hemorrhage.

Dr. Thomas Rogers Waugh (Hahnemann Med. College, Philadelphia, 1872) of St. Albans, Vermont, died on March 17, aged 67.

Dr. Mary C. S. Hodgson, a graduate of the New England Female Medical College, (the predecessor of Boston University School of Medicine) Boston, 1867, died at her home in Stoneham, Massachusetts, on February 18, aged 72 years.

Dr. Abbie Swan Morse (B. U. S. M. 1875) for many years in practice at Gloucester, Massachusetts, died on December 2, 1913.

Dr. Julia A. Marshall, class of 1877, B. U. S. M., for some years located at Haverhill, Massachusetts, but more recently at Norfolk Downs, Boston, died at the Massachusetts Homœopathic Hospital on March 26, at the age of 72 yrs.

Dr. O. O. Roberts, in practice in the town of Northampton, Massachusetts since 1857, died there on April 26 at the age of eighty-five years. Dr. Roberts was the oldest physician in Northampton and the first president of the Western Massachusetts Homœopathic Medical Society. He was graduated from the Pennsylvania Homœopathic College in 1853.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX JUNE, 1914 No. 6

ORIGINAL COMMUNICATIONS.

THREE WAYS TO KEEP BABIES WELL IN BOSTON.*

By GEORGE R. BEDINGER, Director Milk and Baby Hygiene Association.

The three ways employed by the Milk and Baby Hygiene Association in its work of trying to keep Boston babies well are:

1. By the encouragement of maternal nursing.

2. By the provision of pure milk for those babies whose mothers are unable to nurse them sufficiently or at all.

3. And by the education of mothers in the proper care of babies through the supervision of specially trained doctors and nurses.

These three methods all radiate from the various baby health centres conducted by the Association and usually called "milk stations." Although the dispensing of milk is now universally recognized as but a minor part of the work of such infant welfare stations, it is true that the sale of milk at cost attracts mothers and works as a kind of advertisement of the stations. With the progress of rigid city milk inspection, the importance of dispensing pure milk will decrease and the educational features of the work will expand.

The twelve stations which now carry on the work of the Milk and Baby Hygiene Association are:

The North End Union, Parmenter St.
The Elizabeth Peabody House, Charles St.
The Denison House, Tyler St.
The South Bay Union, Harrison Ave.
The Roxbury Neighborhood House, Albany St.
The Maverick Dispensary, East Boston.
The Charlestown Ward Room.
The Lincoln House, Emerald St.
The South Boston Court House.

* Read before the Massachusetts Homœopathic Medical Society, April 8, 1914.

The Cottage Place Day Nursery, Roxbury Crossing.
The Dorchester House, near Field's Corner.
The Hale Street Station, near Bowdoin Square.

Most of the stations are located in settlement houses. This is an admirable arrangement providing us quarters in centres of neighborhood good will and giving through milk station mother and baby an approach for the settlement worker upon the community. Connected with each station is a trained nurse specially fitted for infant work. Over the whole group of nurses is a supervising nurse to guide and direct their efforts, while the general administration of the Association is in the hands of the Director and Medical Director, subject to the Board of Trustees and the Medical Advisory Committee.

Each nurse is daily at her station from 7:45 until 9 A.M. to superintend the distribution of milk. She has thus a chance to inquire each day of the mother, father, big brother or sister about all the bottle-fed babies. Upon urgent cases she calls at once. With the exception of conference hours, when mothers bring their babies to the milk station to consult with the doctors, the whole of the nurse's day is spent in the regular rounds of visits to registered babies and those she hopes to bring under the care of the milk stations.

1. Breast Feeding.

The Milk and Baby Hygiene Association considers its best brand of milk the breast milk supplied by the baby's mother. Every effort is made by the conference physicians and station nurses to conserve and increase this natural and economical supply. Other milk is given only to supplement breast feeding or when all efforts to continue or renew the breast milk have failed. That this is one of the most effective methods of reducing the infant death-rate is amply borne out by statistics. Dr. W. H. Davis, the vital statistician of the Boston Board of Health, has shown that the death-rate among Boston babies on bottle feedings is six times that of the Boston breast-fed babies.

The fact that the Association is best known by its milk stations may cause some people to think it encourages bottle-feeding. Such is not the case. It is quite true that, though the Association conducts milk stations, it tries not to sell milk. Breast-feeding has been for so long a fundamental feature of its program that out of a total of 3421 babies cared for in 1913 the number of babies fed entirely artificially was only 31 per cent of the entire number. 49 per cent, or 1676 babies, were wholly breast-fed, and 20 per cent party breast-fed. The weekly conferences, or baby clinics, are not confined to the mothers of bottle-fed babies. Nursing mothers largely attend. For the important achievement that 69 per

cent of the babies cared for in 1913 were partly or wholly breast-fed, Dr. Arthur A. Howard, the Medical Director, and the conference physicians under his direction are largely responsible.

2. Provision of Pure Milk.

The milk distributed by the Association comes from tuberculin-tested cows. The methods of transporting milk, the central receiving, modifying and distributing plant are under medical and bacteriological supervision. Whole milk, modified milk, fat free milk and whey are pasteurized in the bottle and held at a temperature of 145° for twenty minutes. The whole and modified milk is inspected, and tested in regard to bacterial count and percentages of composition at least once a week through the courtesy of Professor James O. Jordan at the Board of Health Laboratory. The milk sold from the stations is purchased on contract after bids have been asked on public specifications. This milk is sold at cost, the prices at present being as follows:

Modified or certified milk	14 cts. a quart.
Inspected pasteurized milk	11 cts. a quart.

It should be remembered that laboratory modified milk even at hospital rates is 20 cents a quart. Individual daily amounts of milk vary from a four-ounce bottle to a quart and a half. In addition to whole milk, three formulas of modified milk are sold at the stations:

Formula No. 1. Fat 1.5 per cent; Sugar 5 per cent; Proteids 0.5 per cent; Alkalinity 5 per cent. Formula No. 2. Fat 2.5 per cent; Sugar 6 per cent; Proteids 1 per cent; Alkalinity 5 per cent. Formula No. 3. Fat 3.5 per cent; Sugar 7 per cent; Proteids 1.5 per cent; Alkalinity 5 per cent.

The Association is not limited to these formulas but by combinations of them any reasonable formula can be secured.

The Association does not insist upon the milk station mothers buying milk provided by the milk station, if the milk which they have been in the habit of buying is of a quality at least as good as inspected pasteurized milk. There is no objection to families taking milk delivered by any milk dealer whose milk comes up to the standard fixed by the Association. The milk sold at the stations is provided with extra boxes of cracked ice so that the milk bottles in each covered pail brought to the milk stations are packed around with sufficient ice to keep the milk cool for twenty-four hours. The provision of this cracked ice and the return to the milk contractor of extra milk ordered but not called for are parts of the contract terms. In regard to the amount of milk sold by the milk stations it is always difficult to give exact figures, as it will vary from time to time. During February, 1914, however, there was sold from eleven out of the twelve stations 1263 quarts

of modified milk, 4692 quarts of inspected pasteurized milk, 36 quarts of certified milk, being a total of 5991 quarts of milk, a daily average of 214 quarts.

As to the amount of home deliveries of milk it is difficult to estimate. In one station, Roxbury Crossing, where there are 102 babies, all the milk required is delivered to the homes. In other stations the home deliveries are exceptional. It must not be forgotten that nearly half the babies under care during 1913 were entirely breast-fed, so that even if there had been no provision of pure milk as part of our program for helping babies, we still should have supervised a large number.

The principle of home modification of milk became the accepted policy of the Association over a year ago. The reasons for this are two: (1) The great educational advantage to the mother. (2) The economic gain to the mother because of the greater expense of dairy modified milk. At the end of the summer in 1912, 83 mothers knew how to modify milk at home. A year later 403 mothers, a gain of nearly 400 per cent, had been trained to do this by the nurses. At the end of the summer, 1912, 479 mothers were dependent upon formulas made at the dairy. In September, 1913, only 151 were using dairy formulas.

3. Education of Mothers.

The key-note of preventive medicine is education. This is particularly true of that branch devoted to the reduction of infant mortality. Education of the mothers by doctors and nurses is carried on along two main lines: (1) By weekly conferences for mothers. (2) By the constant visits of the milk station nurses to the homes of the babies.

Conferences.

In each station, conferences for babies and mothers, at which physicians and nurses are present, are held from one to two times each week. A baby conference is the most interesting part of the Association's work. Visitors are always welcome at these clinics. Each baby, after being undressed and weighed by the nurse, is examined by the physician. Uniform records are kept of the baby's weight and general condition, the feeding prescribed and the social history of the family. When the baby's gain is unsatisfactory the doctor, with the aid of the mother and nurse, tries to find out what is wrong. In some cases a change in the feeding may be necessary. Quite as often simple advice to the mother on the care of the baby in the home will settle the difficulty. Sick babies are not treated at the conferences. Such cases are referred to private physicians, or if the family is unable to pay for treatment, are sent to a hospital, a dispensary or to a district physician.

In 1912 the average attendance at these weekly conferences for well babies was 19. During 1913 the average number of babies brought to each conference was 28, an increase of nearly 50 per cent. During 1913 the actual attendance at these baby clinics increased to more than 2300 over that in 1912, being 13,754. Nothing could show better the result of the educational work of the nurse with the mother. It means that the mother appreciates the value of consulting frequently with a skilled doctor about the care and feeding of her baby.

Home Visits.

The foundation of this educational work of teaching mothers is laid in the home visits of the nurses. Our staff of nurses paid 41,945 home visits in Boston last year. There is no figure to which more weight should be attached in judging the value of this work than this one. It is difficult to overestimate the importance of the personal contact in the tenement homes of this group of trained, sympathetic nurses upon the life of 3500 families with little children. Does not this mean a school of child-caring on a large scale and of wide significance for the welfare of the next generation in this city?

Educational work of other kinds is carried on by the Association. These are pre-natal instructions and classes for the training in baby hygiene of groups of little girls, called "little mothers' classes." On February 5 the Association opened a clinic for expectant mothers at the Peter Bent Brigham Hospital. Dr. Arthur B. Emmons, 2nd, of the medical staff of the Milk and Baby Hygiene Association, conducts the clinic and the local connection with the community is provided by the Association. This extension of the Association's educational work was made possible, without financial cost, because the hospital provides a room for the clinic and the Instructive District Nursing Association provides the nursing service. Five women presented themselves for consultation with the doctor and nurse on the opening day. The success of this clinic seems to justify its opening because there is no such provision for mothers in Roxbury and Dorchester.

Classes for "little mothers" are organized in several of our stations. If a particular station has no such club it is usually because the settlement in which the station may be located already provides this educational opportunity. These classes meet monthly throughout the year under the direction of the nurse. The Association's first class for "little mothers" or perhaps more correctly "little nurses" is three years old, having been opened in the North End Union by Miss Gallagher. The aim of the class is to teach children, who really have so much daily charge of the tenement babies, the proper way to care for them. Instructions

in the care of bottles and nipples, measuring and warming milk and in regularity of feeding are given. A doll is used in the demonstrations and the little girls are taught the proper way to bathe it, care for its eyes, how to make clothes for it and how it should be dressed just as if it were a real baby.

It will be seen that the three ways outlined, the methods employed to keep babies well, are really parts of one general scheme. This plan is based on scientific principles founded on the study and practice of pediatricians throughout the world. The work of the Milk and Baby Hygiene Association is simply Boston's contribution to the nation-wide campaign to save babies through milk station supervision. Studies recently made for the Annual Report of the Association now in press show how the babies come to the milk stations. The reasons are given in each of the twelve stations why babies are referred to them. The result shows how strongly the milk stations are endorsed by the communities in which they are located. The fact that out of a total of 3421 babies 42½ per cent of all those registered were brought by their mothers, relatives or neighbors shows how the past efforts of the Association have borne fruit. Fourteen per cent were referred by the nurses of the milk stations, 15 per cent by the nurses of the Division of Child Hygiene of the Boston Board of Health, 5 per cent were referred by the Instructive District Nursing Association, 9½ per cent by private physicians, 10½ by hospitals or dispensaries, 3 per cent by settlements and only 1½ per cent were referred to the relief agencies. Parallel with this study one was made of the reasons why babies are discharged from the stations. It was found that 66 per cent of the total passed out of the charge of the Association because they were over age, that is, twelve to eighteen months old, or because they had moved away from Boston. 218, or 1-17, were discharged to hospitals; others to private physicians. A careful investigation of the parentage of the babies supervised showed that 34 nationalities or race subdivisions were represented. The three great groups were (1) the Irish and American, the latter mostly of Irish descent; (2) the Jewish—largely Russian; and (3) the Italian. The Lincoln House milk station led with 17 nationalities. Denison House contained the whole group of 144 Syrian babies, and the Hale Street station was found to contain only Italians.

As Dr. Howard, the Medical Director, said: "It is the business of the Milk and Baby Hygiene Association so effectively to supervise well babies that the death-rate of the babies cared for and Boston's infant death-rate may be materially lessened. Has the Milk and Baby Hygiene Association accomplished this purpose? The concise statement of the actual results is a sufficiently emphatic affirmative.

In 1911, 1924 babies under one year of age were admitted to the supervision of the milk stations. There were 139 deaths during the first complete year of life. This figure includes the death, during the first year of life, of every baby who had benefited by milk station supervision, no matter how short was the period of supervision or how long after discharge from the station death occurred. This gives an actual death-rate of 72 per 1000, which is 25 per cent below the Boston infant death-rate corrected for corresponding numbers, ages and food conditions. In 1912 there were 1922 babies under one year of age admitted to supervision. There were 113 deaths, an actual death-rate of 58 per 1000. This is a reduction of 27 per cent, the expectation rate, *i. e.*, the Boston infant death-rate corrected for corresponding numbers, ages and food being 80 per 1000 births.

In other words, in 1911, 25, and in 1912, 27 out of every 100 deaths occurring among Boston babies of corresponding age and food conditions would have been prevented had they received the benefit of milk station supervision. It is impossible to give the complete statistics on the work of 1913 until the babies admitted have completed their first year of life.

Since the saving of infant lives is one of the main objects of such an organization as the Milk and Baby Hygiene Association, the constant reduction in Boston's infant death-rate is of profound importance. Though baby saving is not our whole problem, the best means by figures of testing the success of our work is in the reports of the Boston Board of Health's infant mortality rates. A comparative table of the baby death-rates of the ten largest cities of the United States for the last three years shows that Boston's place in this great campaign has steadily improved. From seventh place in 1911 it has now reached third place. Whereas the average death-rate of babies under one year of age for the years 1906-1910 in Boston was 133 per thousand born, in 1911 it was 125; 115 in 1912; and in 1913 it has been reduced to 111 per thousand born.

We believe that the Milk and Baby Hygiene Association with other baby saving organizations has been a dominant factor in this lowered Boston infant death-rate.

In closing I wish to express our profound appreciation for the coöperation the milk stations have received from the Homœopathic Hospital and from physicians connected with this institution. I beg you will also allow me to state how very much I appreciate the honor which has been conferred upon me by the invitation and privilege to present this short statement of the work of the Association at this seventy-fourth annual meeting of the Massachusetts Homœopathic Medical Society.

ENLARGED PROSTATE.*

By Victor D. Washburn, M.D., Wilmington, Delaware,
Consulting Genito-Urinary Surgeon, Wilmington Homœopathic Hospital.

Howard Kelly, in the preface to his volume on "Medical Gynecology," among other things has this to say: "The general practitioner yields up to a little group of investigators that portion of his territory which is most obscure and difficult, in which he has made the least progress; the field is diligently cultivated and a specialty is formed. Then in time the specialist so simplifies the etiology, the diagnosis, and the treatment, that he is able to hand back a part at least to the general practitioner, with whom he continues in relations of harmony and sympathy, so that both work conjointly to a common end, namely, the extinction of disease and the amelioration of its ravages."

It is upon this broad ground that I venture to address you on the subject of "Enlarged Prostate." As late as 1836 we find that the accepted method of treating urinary retention due to prostatic obstruction was that of puncturing the enlarged median lobe through the urethra, by means of a specially devised catheter (1). Even a superficial study of the procedures advocated from time to time during the nineteenth century will show how far we have traveled in this important but relatively narrow field. To mention puncture of the bladder through the rectum, the in-dwelling catheter, the Bottini operation and castration as a surgical procedure for enlarged prostate, is but to emphasize the contrast between the work of our predecessors and present day methods.

A man of forty-five or over, who complains of urinary frequency, especially at night, difficulty in starting the stream, concluding with dribbling and accompanied by more or less burning, is potentially, *a prostatique*. If he voids urine that is clear and sparkling and that urine carefully examined quantitatively and qualitatively, shows no evidence of renal impairment, if a Van Buren sound of, say 24F. caliber, can be passed easily into the bladder and as it rests in the prostatic urethra causes an almost irresistible desire to urinate, and careful manipulation fails to elicit the "click" of a stone, there being no residual urine and the prostate per rectum is but moderately enlarged, then you are probably dealing with the first stage of prostatic enlargement, the stage of congestion described by Guyon. If the patient dwells more particularly upon the tardy and dribbling character of his urinary stream and you will find the urine is clear and that in passing a sound the urethra seems elongated and there is present an

* Read before the Homœopathic Medical Society of New Castle County, Delaware, February 13th, 1914.

ounce or more of residual urine, and per rectum you find a marked enlargement of the prostate, then you are dealing with the second stage described by Guyon, that of retention without distention. Later, when the condition has progressed still further you may find that the urine is cloudy, the nocturnal frequency is more insistent and there may be several ounces of residual urine. Here then is the stage of retention with distention.

I would not be understood as implying that the diagnosis of prostatic obstruction is easy. The most careful and painstaking work is necessary before one can successfully differentiate between urethral stricture, prostatic neoplasm, stricture of the neck of the bladder, vesical calculus, cystitis, paralysis of the bladder and nephritis. Not infrequently do we find one or more of these conditions present as a complication of prostatic hypertrophy.

The prognosis of enlarged prostate depends somewhat upon the stage or degree of development. The man in the stage of congestion may under favorable circumstances live a fairly comfortable life for many years. Likewise the patient with sufficient obstruction to cause a partial retention may be comfortable for a number of years, though the chances of his developing an attack of acute urinary retention are infinitely greater; but for the individual with a large quantity of residual urine and who is slowly but surely losing strength we have only the most guarded prognosis.

In general, all prostatics must be especially cautious about getting their bodies chilled, the diet should be of the simplest and eaten in moderation, a mixed diet with an abundance of fruits and vegetables, excepting those difficult of digestion or rich in oxalic acid. Wine in moderation if its use has been habitual, beer not at all. Constipation must be avoided if possible.

I am of the opinion that the total urinary acidity should be used as an index for medication prescribed on chemical grounds for urinary frequency, it is obviously irrational to administer the bi-carbonate of soda as an anti-acid, when the urine is highly irritant, because of either a low in-take of fluids or a faulty metabolism incident to a poorly functionating liver. In short an intelligent study of the urine may direct attention to a distant part of the organism with profit to both patient and physician.

During this stage of congestion, the occasional introduction of a cold sound and hot rectal enemata may make the patient more comfortable and check, as it were, the onward progress of the disease for months and even years.

There are four remedies that I have found valuable at this period. Cantharis is useful when there is frequency and tenesmus. There may be terminal hematuria and pain along the urethra, the picture being that of acute inflammation. I prescribe the bichloride of mercury when in addition to these symptoms there are

those of constitutional involvement as shown by the foul breath, flabby tongue, depression, etc. Gelsemium is useful when the patient passes large quantities of water at frequent intervals. He may feel as though the bladder did not quite empty itself and there may be a chilly sensation extending up and down the spine at the conclusion of the act. In those tense, irritable business men, who are habitually constipated and whose symptoms are aggravated in the morning or after mental activity and whose urinary symptoms are those of urging in both bladder and rectum, I find nux vomica of service. I use the bi-chloride in the third dilution and the others in the first.

When our patient has reached the point where two or three ounces of residual urine are always present we must redouble our efforts at keeping him *in statu quo*. As long as he is comfortable and has to urinate but two or three times during the night, just so long are we justified in treating him expectantly. If his nocturnal frequency tends to increase, if we find his residual urine slowly but surely increasing in quantity and there is evidence of his general tone being lower, then do I feel that we are obligated to place the surgical aspects of the case before him. To such an individual we can say, there are three courses open,—you may succeed in getting along without the use of either a catheter or resorting to surgery, in which case it can be stated that the chances of your being dead within five years are about fifty per cent. If it becomes necessary for you to depend upon the catheter as a regular means of relief, then the mortality rises to about sixty-six per cent, or, to put it in another way, you will probably be dead within two years and a half from the institution of catheter life. If you elect to take your chances on the operating table it can be stated that the operative mortality runs anywhere from two to ten per cent, and as for the end results we can say, in the language of J. Bentley Squier, to whom we are indebted for these figures (2) "Of one hundred patients operated for benign hypertrophy, eighty-seven are alive and completely relieved from obstructive symptoms at periods ranging from four years to one year."

If operation is declined or the case is one that has gone to a more advanced stage, then we must fall back upon the catheter, In this connection it is well to bear in mind that with the cystitis commonly present in this class of work, there is present an immunity to grave infection, and if the kidneys are in reasonably fair condition the operative risk is really less than in the patient with a clean bladder. If under these circumstances secondary symptoms are developing,—and by this we mean loss of appetite, weight and strength,—by all means urge an operation.

Now as to the management of acute urinary retention. If it is the first attack it is vital that every effort be made to avoid infec-

tion of the bladder. We are apt to grow careless in this matter, so I trust that you will pardon me if I digress for a moment to suggest that before catheterizing the glans should be cleansed and a sterile Mercier catheter introduced; Mercier because it is the one that will probably be the easiest to introduce in this particular condition and because one can grasp that portion of the instrument which does *not* enter the bladder. The proper method of sterilization of this type of catheter is to drop it into water that is boiling actively, permit it to remain in the boiling water about three minutes and then let the water cool, not disturbing the catheter until the water is cold. The proper way to ruin a catheter, whether it be soft rubber or woven, is to *stew* it!

Keep the patient in bed, catheterize often enough to prevent distention. I am in the habit of ordering a rectal suppository made up of twenty grains each of icthyol and ergotol, cocoa butter to make a dozen, one, morning and night. Internally I am apt to prescribe sabal serrulata, ten drops of the tincture three times a day. If after a few days the condition remains about the same, hot rectal enemata, morning and night, are ordered, and if the history is such as to lead one to conclude that the bladder musculature has been over-worked for a long time in its attempts at evacuation, then ferrum picrate 2x is said on good authority to be a valuable remedy. My experience with it however, has been extremely limited.

In writing this paper I have had in mind more particularly, the needs of the general practitioner, so the cystoscope, the modern methods of determining kidney function have not been mentioned nor have I discussed the procedure in those cases of acute retention which do not answer to the usual methods, for here I believe is the proper sphere for co-operation on the part of the internist and the specialist.

I am persuaded, however, that a very brief discussion of the purely surgical aspect of this problem will not be out of place at this time. After all is said and done by the advocates of the perineal method of approach as compared to the suprapubic, we are forced to the conclusion that under certain well defined conditions the perineal route is the one of election and under certain other, equally well defined conditions the suprapubic operation is the one of choice; it would seem clear that the prostate that is but moderately enlarged and in an individual with a small pelvis is more accessible through the perineum. Conversely the large, adenomatous prostate in the man with a large pelvis can be operated to better advantage by the suprapubic route. It is true that a great many of these cases are, so to speak, borderland cases and can be operated with equal facility by either route, and here I feel that the operator is justified in choosing the method in which he

is most proficient, but the surgeon who advocates one operation to the exclusion of all others, is in my opinion, deficient in good judgment.

I believe that the general trend among American operators is toward the suprapubic route. I think also that if for any reason the wound does not close the patient can be made comfortable, which is more than can be said of the patient with a perineal fistula.

Most men report a higher operative mortality with the suprapubic operation, though the Mayo's report a mortality of about ten per cent for both operations. I will qualify this last statement by saying that I believe it to be correct but am unable to locate the reference.

One other reason for urging a prostatectomy is that a certain percentage of benign hypertrophies become malignant. Some authorities place this as high as ten per cent. In this connection permit me to remind you that it is well to be suspicious of men with enlarged prostates who complain of pain, referred down the inner aspect of one or both thighs. Carcinoma may be present.

Conclusions.

1st, hygiene, medication and the passage of cold sounds may hold *in statu quo* first stage cases of enlarged prostate.

2nd, second stage patients with an increasing quantity of residual urine should be urged to submit to a radical operative procedure, emphasis being placed upon the fact that their expectancy is less than three years when on catheter life.

3rd, that other things being equal, the operative mortality is something less than ten per cent and the chances of relief from all obstructive symptoms very good.

SPONDYLOTHERAPY: WHAT IT IS AND WHAT IS CLAIMED FOR IT.

By G. C. Dominick, M.D.,
Attending Physician Dept. Physical Therapy, Flower Hospital, N. Y. City.

Spondylotherapy is that method of treating disease which is concerned only with the excitation of functional centres of the spinal cord by certain measures such as tapping and pressure.

Osteopathy is that method of treating disease which is concerned with anatomic abnormalities and their correction. Its nosology is a lesion, its symptomotology a subluxation.

Chiropractice is that method of treating disease by which the pinching of nerves passing through the intervertebral foramina is relieved. Chiropractice differs from Osteopathy in these respects:

1. The hands are used in a different manner and the movements are dissimilar.

2. The etiology of disease is unlike that accepted by Osteopathy.

3, Chiropracters adjust for more diseases than osteopaths and the results are immediate.

Spondylotherapy: Dr. Abrams claims for it as follows:

By Spondylotherapy every organ is either contracted or dilated. By tapping the spinous process of the seventh cervical vertebra the tone of the vagus is increased. This is of value where the tone of the vagus is too weak, as in exopthalmic goitre. By tapping the spinous process of the seventh cervical vertebra the increased tone of the vagus properly enervates the thyroid gland and that gland is shrunken, thereby causing the goitre to disappear. Pressure over the seventh cervical spine will also cause the eye-ball to recede and pressure over the space between the third and fourth dorsal spine will cause the eye-ball to bulge forward. The tapping is done with a pleximeter and plexor or by the clenched fist and palm of hand if without implements. The tapping lasts fifteen seconds, then there is a rest of fifteen seconds, followed by tapping for fifteen seconds. The whole treatment lasts six minutes,—three minutes of treatment and three minutes of rest altogether. In persistent cases treatments by tapping last one minute each, and the rests are for thirty seconds between each tapping. The time for treatments may vary slightly and within reasonable limits. If the vagus is tapped too much or there is not enough pause between tappings it will not respond, for its reaction will be worn out.

A case of goitre in a young girl aged about 18 resulted in the disappearance of the goitre in about three months. I saw the case at the clinic and there was no goitre to be seen. She said

that it had been as large as her fist. In this case the doctor concussed the second lumbar spine as well as the seventh cervical, as the former tones up the ovarian region which is supposed to play a part in these cases. One enormous case of goitre in a man was relieved by pressure over the seventh cervical, fifth dorsal and tenth dorsal spines.

Aneurism is also treated by concussing the seventh cervical vertebra for three minutes, the treatments lasting one minute each with rests of thirty seconds between each tapping.

Concussion over the tenth dorsal spine will dilate an aneurism, while concussion over the seventh cervical spine will contract the same.

Treatment for dilating pylorus: Pressure at the fifth dorsal spine will produce an immediate change in the position of the stomach. The stomach, at first horizontal, becomes vertical. Under ordinary conditions, if 100 c.c. of olive oil be taken into the stomach and left there two hours fifty per cent can be recovered.

But if you press at the fifth dorsal spine at intervals of a minute for thirty seconds there is nothing left in three minutes after ingestion. (Klempferer's test).

Treatment for obtaining duodenal contents: Press over fifth dorsal spine for thirty seconds, forty-five minutes after ingestion. Make pressure as strong as patient can stand. In this way you can pass stomach contents into duodenum and get duodenal contents. This is of significance in gastric ulcer; also in infantile cases where you want to know if the condition is one of spasm or hypertrophy. If you press fifth dorsal spine and get relief of pain you will have condition of spasm.

Treatment for acid stomach: Tap over tenth dorsal spine and increase secretion of pancreas by throwing its alkaline secretion into the duodenum. This acts like an ingestion of an alkaline salt and make pain disappear. Tapping seventh cervical spine after this treatment will bring back pain by increasing HCL in stomach. (Pain in stomach is also relieved by giving Orthoform, grains 8, and much water given by mouth, then pressure over the fifth dorsal spine thereby emptying stomach contents into duodenum.)

Treatment for distress at menopause, climacteric and puberty; Tap seventh cervical vertebra.

Treatment for malaria: Concuss second lumbar spine for six 30-second periods, resting a few minutes between each period of concussion. This treatment drives plasmodia into circulation by contracting spleen. Sometimes necessary to concuss first three lumbar spines. (Use quinine, too.)

Treatment for diabetes mellitus: This disease often associated with goitre and reaction of vagus tone so that treatment directed

towards increasing tone of vagus will at least establish more tolerance of carbohydrates.

Treatment for Constipation: Concuss either second lumbar or eleventh dorsal spine as follows: Concuss eleventh dorsal spine and if dulness disappears on percussion over the intestines then you have a condition of spastic constipation which is shown by the sound of tympany on percussion where dulness was before. Such a case should, therefore, be treated by concussion of the eleventh dorsal spine. Sometimes pressure instead of tapping will relieve these cases. This concussion of the eleventh dorsal spine causes dilatation of the intestines. If the tympany does not appear where the dulness was on tapping the eleventh dorsal spine, then you have a condition of atonic constipation and you must concuss the second lumbar spine, thereby causing contraction of intestines. In combined cases use combined treatment. Such cases are sometimes cured in one week. Somewhat heavy pressure is necessary when used in these cases. Always examine with X-ray to see if there is any intestinal obstruction.

Treatment for examining gall-bladder: To bring out gall-bladder for further examination on percussion: Concuss ninth dorsal spine, which will dilate it. To contract same concuss fourth, fifth, and sixth cervical spines.

Treatment for asthma: Tap seventh cervical vertebra for three minutes, giving fifteen-second treatments and resting fifteen seconds between each treatment. This makes the whole treatment including rests last six minutes. One of these treatments should be given daily. Such a treatment decreases the size of the heart and stops the asthma. Pressure between the third and fourth dorsal spines produces decreased tone of the vagus thereby increasing asthma.

Treatment for Glaucoma: Tap seventh cervical spine and the pressure on the eye-ball will be decreased fifty per cent. The opposite result will be obtained by tapping the tenth dorsal spine.

Treatment for Locomotor Ataxia: Tap tenth dorsal spine very rapidly. This treatment will dilate all the blood vessels of the cord and will improve gait, although it will not expel the pains. Such a case was presented at the clinic in Chicago and received treatment for the first time there. Dr. Abrams concussed all the spines between the seventh cervical and the last lumbar and the man certainly walked much better than before.

Treatment for vomiting of pregnancy: Pressure between the third and fourth dorsal spines. The same treatment is given for sea-sickness, but the benefit does not last long.

Treatment for Appendicitis: Pressure over the fifth dorsal spine will allow of passage of rectal tube beyond sigmoid flexure,

thus admitting of cleaning out of colon. This may cure or at least relieve.

Treatment for enlarged liver: Concuss second and third lumbar spines.

Treatment for high blood pressure: Concussion between the third and fourth dorsal spines will reduce blood pressure.

Treatment for Nephritis: Concussion of tenth dorsal spine will lessen the amount of albumin thrown out and improve vision.

Treatment for Spasm of Œsophagus: Pressure over the seventh cervical spine contracts œsophagus and opens the cardiac orifice of the stomach. Pressure between the third and fourth dorsal spines opens the œsophagus and closes the cardiac orifice. Pressure between the third and fourth dorsal spines anæsthetizes the œsophagus and throat.

Treatment for Pulmonary Tuberculosis: If seen early, concussion of the tenth dorsal spine is of great service, as it increases the red blood corpuscles from 100,000-500,000.

To differentiate between Cardiac and Bronchial Asthma: If bronchial, pressure over the seventh cervical vertebra will increase rales. If cardiac, pressure over the spaces between the third and fourth dorsal spines will increase rales. Pressure between the third and fourth dorsal spines will decrease rales in bronchial asthma, and pressure over the seventh cervical spine will decrease rales in cardiac asthma.

Treatment for finding proper spine to concuss when in doubt: Concuss all the spinous processes of all the vertebra possible one after the other. When the spine which governs a certain lesion is found that spine will be found to be tender. This is of value in lesions like neuritis, etc.

RADIUM.*

By Rudolph Jacoby, M.D., West Medford, Mass.

In introducing the subject of my paper I shall devote some time to a theoretical and historical sketch of the facts which lead up to the important discovery of this new and wonderful element, radium.

The past few years have been marked by a very rapid increase of the knowledge of a most important but comparatively little known subject,—the connection between electricity and matter. This subject has been very fruitful in surprises to the investigators, both from the remarkable nature of the phenomena exhibited and from the laws controlling them. The study of the radio-active substances and of the discharge of electricity through gases has supplied very strong evidence in support of the fundamental ideas of the existing atomic theory. It has also indicated that the atom itself is not the smallest unit of matter, but is a complicated structure made up of a number of smaller bodies.

The experiments of Leonard on the cathode rays and Roentgen's discovery of the X-rays gave the study a great impetus. Examination of the conductivity imparted to a gas by the X-rays leads to a clear view of the mechanism of the transport of electricity through gases by means of charged ions. This ionization theory of gases affords a satisfactory explanation not only of the passage of electricity through flames and vapors, but also of the complicated phenomena observed when a discharge of electricity is passed through a vacuum tube. Further study of the cathode rays showed that they consisted of a stream of charged particles, projected with great velocity and possessed an apparent mass, small compared with that of the hydrogen atom.

An examination of natural substances, in order to see if they gave out dark radiations similar to the X-rays led to the discovery of the radio-active bodies which possess the property of spontaneously emitting radiations, invisible to the eye, but readily detected by the action on photographic plates and by their power to discharge electrified bodies.

To explain this phenomenon, Rutherford and Soddy in 1903 advanced the theory that the atoms of radio-active elements suffered spontaneous disintegration, and gave rise to a series of radio-active substances which differ in chemical properties from the parent elements, the continuous emission of energy from the active bodies being derived from the internal energy inherent in the atom itself. (This does not in any way contradict the law of

* Read before the Alethean Club, Boston, January 9th, 1913.

the conservation of energy). The enormous store of latent energy is resident in the atoms themselves.

On this theory, there is a veritable transformation of matter in the radio-active bodies. The process of disintegration was initially investigated by means of the property possessed by the radio-active bodies of giving out specific types of radiation. In weak radio-active substances like uranium and thorium, the process of disintegration is very slow, while with radium it is sufficiently rapid to obtain evidence of transformation with very small quantities of the material weighing only a fraction of a grain; *i. e.*, the isolation of a most remarkable gas, known as "radium emanation." Further proof of the continuous production from radium and other radio-active bodies is the rare gas helium which is derived from the emanations in consequence of changes of some kind occurring in it.

The term "Radio-active" is generally applied to a class of substances, such as uranium, thorium, and their compounds, which possess the property of "spontaneously" emitting radiations capable of passing through plates of metal and other substances opaque to ordinary light. The characteristic property of these radiations, besides their penetrating power, is their action on a photographic plate, and their power of discharging electrified bodies. In addition, a strongly radio-active body like radium is able to cause marked phosphorescence and fluorescence on substances placed near it. In the aforementioned respects the radiation possesses properties analogous to the Roentgen rays but this resemblance is only superficial.

Roentgen's discovery of the X-rays in 1895 created a most intense interest throughout the scientific world. This influenced several physicists to try whether ordinary bodies emitted a similar radiation, which was able to pass through matter opaque to ordinary light. Working along these lines, Professor Henri Becquerel exposed a number of phosphorescent substances enveloped in black paper under a photographic plate. His results were entirely negative. It then occurred to him to try experiments with salts of uranium, the phosphorescence of which had been previously investigated by him. He exposed crystals of the double sulphate of uranium and potassium to light, then enveloped them with two layers of black paper, and placed below the photographic plate with a small plate of silver between. After an exposure of several hours and development, a distinct photographic effect was observed. The experiment was at once repeated with a plate of glass 0.1 mm. thick between the uranium salt and the photographic plate in order to cut off effects due to possible vapours. A distinct but slightly feeble photographic impression was again obtained.

This marked the discovery of "radio activity," and these active radiations were called "Bequerel Rays."

In addition to the action of these rays from uranium on a photographic plate, Bequerel later showed that uranium rays, like Roentgen rays, possessed the important property of discharging both positively and negatively charged electroscopes. This effect is most simply shown by bringing an uncovered uranium compound near the charged plate of an electroscope. It was further noted that the radiations from uranium were complex in character and consisted of three distinct types known as alpha, beta and gamma rays.

Following the discovery of the activity of uranium, the question arose whether this property was confined to uranium and its compounds, or whether it was exhibited to an appreciable extent by other substances. In the course of examination of a number of substances by the electrical method, Prof. G. C. Schmidt, and independently, Mme. Curie, found that thorium and its compounds and also thorium minerals possessed properties similar to those of uranium. Thorium like uranium emits beta and gamma rays but the gamma rays of thorium are more intense and penetrating than those of uranium. In 1905 Hahn discovered two transformation products of thorium; *i. e.*, mesothorium and radiothorium. Mesothorium has chemical properties similar to those of radium and has an activity comparable with that of pure radium.

While examining the radio-activity of a large number of minerals containing uranium and thorium; *i. e.*, pitchblende, clevite carnotite, chalcolite, antunite, thorite and orangite, Mme. Curie concluded that the radio-activity of uranium was an atomic property, *i. e.*, that the total radiation emitted from a compound was proportional to the amount of uranium element present, and independent of its combination with other inactive substances. It, therefore, seemed probable that the large activity of some of these minerals compared with uranium and thorium must be due to the presence of small quantities of an unknown element or elements of activity greater than uranium and thorium. Relying on this hypothesis, M. and Mme. Curie proceeded to examine whether it was possible to separate this unknown substance from uranium minerals. This led to the discovery in 1898 of two new substances, called polonium and radium, the latter of which is now known to have an activity of several million times that shown by an equal weight of uranium. Polonium was named in honor of Mme. Curie's native country.

The discovery of radium in pitchblende gave rise to further chemical examination of this mineral. In 1899, M. Debierne discovered the presence of a new radio-active substance. This he called "actinium." Hofmann and Straus, in 1901, discov-

ered that lead separated from uranium minerals contained a new active substance which they called "radio-lead." Boltwood in 1907 discovered the presence of another radio-active substance which he called ionium.

Radium is a transition element which is derived from uranium. Radium is extracted from pitchblende and uranium minerals, the content of radium always being proportional to the weight of uranium, *i. e.*, 3-4 parts in 10,000,000. Therefore, in 1000 kilograms of pitchblende containing 60 per cent of uranium there is present about 200 milligrams of radium.

The most important radium bearing deposits of Europe are found in Germany and Austria. Pitchblende is found at Joachimstahl in Austria, and at Johanngeorgenstadt, Marienberg, Frieberg, and Schneeberg in Saxony, and Pribram, in Bohemia. There are also mines of lesser importance in Portugal and Australia. The mines at Joachimstahl have been worked since 1517 principally for silver, cobalt and bismuth. During the last ten years they have been worked exclusively for uranium, the Austrian government having taken over complete control of them and erected a factory at Joachimstahl for the handling of the uranium ores.

Although the Austrian government has conserved its own resources of uranium and radium by purchasing the Joachimstahl mines and by carefully supervising pitchblende production, the deposits of radium bearing minerals in the U. S. are being rapidly depleted by wasteful exploitation, chiefly for the benefit of foreign markets.

Seemingly, this country has been quite unaware of the extent to which uranium ores have been sent abroad. It can undoubtedly be stated definitely that in 1912 there was obtained from American mines nearly two and one-half times as much radium as from all the other sources combined. This means that notwithstanding the fact that our country is the richest radium bearing country, it is permitting all this valuable ore to be sent abroad, there being only one American company preparing radium salts of a high degree of radio-activity.

Pitchblende has been found in the following localities in the United States: Feldspar Quarry at Middletown, Conn.; in Hall's Quarry, at Glastonbury, Branchville, Conn.; at Marietta, South Carolina; in Llano County, Colorado; and in Mitchell County, North Carolina. The most important and the richest of these is in Gilpin County, Colorado. These mines are also rich in carnotite which carries vanadium as well as uranium and radium.

During the last year, carnotite was produced in the United States carrying 28.8 tons of uranium oxide from which 8.8 gms. of radium chloride or 11.43 gms. of radium bromide could be obtained. Practically all of this ore was shipped abroad for the ex-

traction of radium. The value of the radium salts extracted would be $528,000 at a minimum market price. The total supply of radium salts from all other sources including the Austrian mines was probably not more than 3.65 gm. of radium chloride, basing the production of the Austrian mines for 1912 on that of 1911 which is known. According to the U. S. government information, it is quite certain that if the ores which have been mined in this country and abroad and sold for radium production have been actually worked up into this material, there is now in existence something like 40 grams (1¼ ounces) of radium. The price of radium salts varies somewhat. In large quantities it has been $60,000 per gram for both radium chloride and radium bromide, although the latter contains less metallic radium in proportion to its weight than the former. In small quantities the average price has been $80,000 per gram which represents about $2,250,000 per ounce.

The atomic weight of radium is 226.5 and it has a characteristic spectrum line. The general properties are closely allied with those of barium, the radium salts, however, being colored in time by their own radiation.

The most interesting properties of radium are the radiations and it power to form radio-active gas or emanation. This constant radiation or emission of invisible rays may continue hundreds of years without diminishing perceptibly the quantity of metal, it taking 2000 years for a quantity of radium to lose half its strength.

The radiations have been classified by Rutherford as alpha, beta and gamma rays. The radium itself emits only alpha rays, while the beta and gamma rays arise entirely from the radio-active products produced in the radium.

The alpha rays have very little capacity for penetrating and are readily absorbed by thin sheets of metal or by a few centimeters of air. These rays represent particles of matter charged with positive electricity the size of an atom of hydrogen, which are thrown off with a velocity equal to about 1-15 the velocity of light. When its motion ceases it is transformed into the inert matter called "helium," which is a new element.

The beta rays are far more penetrating in character than the alpha rays, and consist of particles charged with negative electricity. The particles thus represented are 2000 times smaller than the hydrogen atom and are thrown off with a velocity about equal to that of light.

The gamma rays are extremely penetrating and are not deviated by a magnetic field. Their true nature has not been definitely settled, although the majority of physicists consider them to be waves of ether similar to light or electricity.

The diagram (I) illustrates the effect of a magnetic field on a pencil of rays from radium. The radium is placed in the bottom of a narrow cylindrical lead vessel (A). A narrow pencil of alpha, beta and gamma rays escapes through the opening. If a strong magnetic field is applied at right angles with the plane of a photographic plate (B) which is placed beneath the cylinder a distinct impression is made. The alpha rays being deflected slightly to the right, the beta rays to the left and more so than the alpha rays, while the gamma rays remain unaffected. The alpha rays are absorbed after traversing a few centimeters from cylinder A.

The radio-active emanation of radium can be released by heating or dissolving it. This intensely radio-active gas contains more than ¾ of the activity of the radium from which it is derived. It is widely used in place of radium itself and can be transferred from one vessel to another and highly concentrated. The activity of the emanation is not permanent but decays to half value in 3.85 days and becomes very small after a month's interval.

The volume or amount of rays and emanations given off from a specimen of radium depends on its activity and quantity. Radium compounds, as compared with the unit of radio-activity, uranium oxide, exhibit various degrees of activity depending on the weight and purity.

The radio-activity of radium can be measured in one of three ways, *i. e.*:—

1. The action of the rays on photographic plates.
2. The ionizing action of the rays on the surrounding gas. (electroscopic)
3. The luminosity produced by the rays on a screen of platinocyanide of barium, zinc sulphide or similar substances.

Of the three methods mentioned the second or electrical method is most used. A disc of metal, charged with electricity and insulated from its surroundings by glass or some other good non-conductor, will retain its electric charge for a considerable time, provided that the air surrounding it is perfectly dry. If the air, however, has been ionized from any source, the charge of electricity is quickly lost. The explanation is simple. If, for example, the disc is charged negatively, the metallic surface will attract all the positive ions in its neighborhood, and these will neutralize its own electricity, until the disc is completely discharged. This phenomenon affords a means of measurement of the rate of discharge and ascertaining the degree of ionization. Pure radium has an activity of about 1,800,000 to 2,000,000.

Pure radium salt without cessation and for an indefinite period, evolves heat enough to maintain itself at a constant temperature of 1.5°C. above other objects in a room. A gram weight

gives off 100 calories every hour, an amount sufficient to raise 1 gram of ice water to the boiling point.

The action of radium on living tissues was accidentally discovered by Henri Becquerel in 1901. He carried a quantity of unprotected radium in one of his pockets for a time. A fortnight later severe inflammation appeared on the skin. This accident quickly led to a number of experimental exposures, first on animals, and later on human subjects. When meal worms were subjected to the rays of radium it so repressed their growth that they went on living as meal worms, while other meal worms unradiumized progress indefinitely, completing several cycles of beetles, eggs, meal worms, etc. Plant life is similarly affected. The life force of dry seeds is changed by exposure to the rays, the growth of the planting being retarded proportionately to the length of exposure.

All tissues when treated with radium respond in some manner but different cells and tissues of the organism react differently to the rays. For instance, the liver cells are more susceptible to the rays than the gall duct cells and the tubules of the kidney react stronger than the glomeruli. The liver as a whole is more susceptible than the kidney. The pancreas is still less susceptible. The most resistant tissues are the connective tissues and the muscles. Highly interesting and of practical importance is the action of the rays on the testicle and the ovaries. The ray affects the spermatozoa-forming epithelium, and the Graffian follicles: azoospermia may occur in a man and a cessation of menstruation in a woman without any other lesion in the organism. This highly selective action of the rays has its limitations, but if a sufficiently large quantity of the rays is used every cell in the organism may be destroyed. Old and highly differentiated cells are more resistant to the action of the rays, while the young embryonic cells, and cells in a state of active proliferation, are very susceptible. From this fact it is clear, *a priori*, that the rays must exert a selective influence on cancer cells.

As has been mentioned before, the large percentage of rays are the alpha and soft beta rays. Since they have a small penetrating power, they are all absorbed by the superficial layers of the skin, and there injure every cell they meet, acting as an ordinary caustic. On the other hand, the gamma rays represent only a small fraction of the whole radiation, and penetrate very far, consequently the rays are greatly diluted, each cell absorbs comparatively little of the rays, and the selective action becomes very apparent.

Abbé, in his early work, distinguished two methods of radium action. One the specific retrograding effect on neoplasms whose essential substance is an erratic overgrowth of epithelial, embry-

onal or glandular structures. The other, the occlusive blockade of highly vascular tumors (obliterative endarteritis) by irritant action (as in naevi and angiomata).

The reaction produced depends principally on the length and frequency of the exposure to the rays. After an exposure of thirty minutes, redness appears in about three days. This is accompanied by slight burning and itching. Desquamation occurs; and in about three weeks the reaction has subsided. An exposure on three successive days, one hour each, produces an inflammatory reaction that is marked. At the end of about three days redness appears. The skin becomes itchy, somewhat swollen and tender to touch. A crust gradually appears which is of greenish yellow color and rests on a dry or slightly excoriated base. The crust resembles that of impetigo contagiosa. The crust lasts for two or three weeks and may fall off spontaneously and renew itself several times. Finally, at the expiration of four or five weeks, a pink and then normal skin surface is left. Longer exposures cause ulceration with formation of eschar. From this four degrees are clearly distinguished.

1. Simple erythema.
2. Erythema followed by desquamation.
3. Vesication with superficial ulceration.
4. Deep ulceration; sometimes accompanied by the production of an eschar.

Von den Velden (Leipsic) has noted that the rays from radium emanation administered by inhalation and subcutaneous infection decreased the coagulation of the blood.

The principal action of the rays on diseased tissue, particularly cancer tissue, is the vacuolization of the cancer cells and the formation of scar tissue.

In radium therapy several forms of applicators and various methods of application are employed. The applicators generally used are:—

1. Flat varnished applicators, (rectangular, square, circular) the superficial area varying in size.
2. Capillary glass tubes filled with radium salt closely packed so as to prevent any movement of the salt. Tubes of varying activity are used.
3. Radium Emanation:—
   (a) Collected in glass tubes or metal containers and used with appropriate screens, exactly as the radium salts themselves are used, due regard being paid to the gradual fall in radio-activity resulting from the decay of the emanation.
   (b) Dissolved in distilled water or a weak solution, and administered by drinking or injection.

Screens are employed as filters for the different rays. (These vary in thickness) (.01 to 2 mm).

1. Aluminum. These are principally used with short exposures in treatment of capillary nævi, pruritus, neuro-dermatitis, and superficial skin lesions.

2. Silver. These are most useful as shields for the glass tubes of radium when introduced into tumors, and also in treatment of keloid and vicious cicatrices.

3. Lead.

(a) Screens less than 0.5 mm in thickness are valuable in the treatment of flat superficial epitheliomata, leucoplakia, fibromata, and granulomata.

(b) Those exceeding 0.5 mm are used when it is desired to employ the hard beta and gamma rays only and to give prolonged applications without causing any surface irritation.

The duration of the application or exposure depends upon the condition treated, viz:

1. "*Very short exposures*" of half a minute to three minutes according to age of the patient and character of the lesion, are principally used in the treatment of skin troubles. The apparatus is applied without the use of a screen beyond that afforded by a covering of thin rubber sheeting which is used by many operators.

2. "*Short exposures*" of five minutes to one hour's duration. Most frequently used when treating warts, senile keratoma, some forms of nævi, shallow ulcers, lupus erythematosus, etc. Very thin screens of aluminum usually used.

3. "*Moderately long exposures*" of one to eight hours are adopted when it is desired to obtain the destructive action of the rays. Used in cases of rodent ulcer, rapidly growing epithelioma, lupus vulgaris, etc. No screens being used, and the total exposure extending over two to four days.

4. "*Prolonged exposures*" of twelve to one hundred hours, or more are employed in the treatment of deep seated malignant growths, in cancer of rectum, uterus, breast, etc. Lead screens are employed and usually exposures are given in periods of six to twelve hours, with an interval of at least twelve hours between successive exposures.

Varnished applicators are usually covered with a thin layer of rubber sheeting, which effectively protects them from contact with any excretions or moisture.

When silver or lead screens are used, the passage of the gamma rays through these metals gives rise to secondary rays, which are very irritating, though their action is superficial only.

To obviate this, six to twenty-four sheets of black photographic paper and one or two layers of lint are interposed between the metal screen and the outer rubber covering. When tubes shielded with lead or silver screens are introduced into the vagina, rectum, uterus, etc., they are enveloped in rubber tubing of 3 mm thickness for this same purpose. The secondary rays vary greatly in amount according to the nature of the metal and the thickness of the screens employed.

The lesion to be treated should be gently cleansed and dried, and all crusts or flakes of secretion removed. The healthy skin and tissues surrounding the lesion must be carefully protected by a layer of lead or lead-rubber sheeting, similar to that used in X-ray work, an aperture being cut in the sheeting the exact size and shape of the lesion. For external work the apparatus can be held in a fixed position with some non-irritant adhesive rubber plaster.

To retain tubes in the vagina or uterus tampons are generally used. In the rectum, nasal and buccal centers the apparatus can be attached to a silver wire handle, which can be easily bent and fastened by adhesive plaster.

The nature and extent of response of tissue treated with radium vary greatly and depend upon:—

1. *"The apparatus, screening and dosage employed."*

2. *"The nature of the tissue treated."*

3. *"The condition of the tissues treated."* If X-rays, ionization, CO^2 snow, etc., have been previously used in attempts to bring about a cure, the reaction in such cases is frequently atypical, and the repair is exceeding slow.

4. *"The extent of the area treated."* The reaction is dependent not only upon the strength of the applicator, but also upon its superficial area.

5. *"Personal idiosyncrasy."* In this respect factors to be considered are age, sex and temperament, susceptibility to active rays generally—as in persons who suffer from freckles or solar eczema —hyperidrosis, exalted vasomotor sensibility, etc.

With a few patients the time of reaction is much delayed or exceedingly prompt, in which cases it is impossible to discover why this difference should be.

The increased susceptibility to changes of temperature over areas that have been treated with radium is very remarkable, and many patients who have had rodent ulcer and superficial skin lesions cured with radium stated that they experienced great discomfort at the site of the old lesion when very cold or very warm air played upon it. This susceptibility returns to normal in a few months.

A very marked condition of lethargy is invariably noted in patients subjected to long exposures with large quantities of heavily screened radium.

The best results in use of radium therapy have been accomplished in superficial new growths, although some promising results have been obtained in the treatment of tumors in general and also internal diseases. In a series of 181 cases of skin cancer reported by Williams and Ellsworth (Boston) 154 were entirely healed. Statistics attribute about 96 per cent cures in skin cancers. Promising results are being obtained in cancers of breast, rectum, uterus, etc. In the treatment of uterine cancer Bumm (Berlin) combines the Roentgen rays and mesothorium rays by a new and perfected technic. It permits intensive large doses without the mixing of normal tissue. In twelve cases thus treated all the morbid symptoms disappeared in less than ten days. The fibers of connective tissue undergo hyalin degeneration and become hard under these rays. Whether this resulting induration destroys the cancer cells by a purely mechanical action or whether the cancer cells die from a specific action of the rays, is not known at this time.

In severe cancers which are inoperable radium will often bring about results not obtained by any other method; *i. e.*, hemorrhage may be arrested, discharges diminished and rendered less offensive, ulceration often healed, and pain greatly relieved.

Few good results are reported in Paget's disease. Rodent ulcer is one of the most amenable of the malignant diseases. In the treatment of keloid radium is now one of the best known remedies, especially in young subjects. Satisfactory results are being obtained in the treatment of many of the forms of fibromata.

Among the skin diseases in which promising results are being noted are pruritis, chronic eczema, psoriasis, lupus vulgaris, lupus erythematosus and lichenifications of the skin.

In the sphere of internal medicine much research is now being done. The greater part of the work being done with the radium emanation. Kraus reports the results in 41 cases of gout, sciatica, neuralgia, angina pectoris, joint troubles and tabes in which radium exposures were used. Only seven failed to show any improvement. The best results were obtained in ten cases of sciatica, and next to this in turn in sub-acute and chronic rheumatism, gout, intermittent claudication and some of the consequences of cerebral hemorrhage.

Homœopathy.

In 1908 Dr. J. H. Clarke published the first provings of radium bromide. These provings were imperfect because of the fact that

he neglected the complete laboratory and physical tests which are now demanded in scientific medicine. Moreover, he limited his work to the thirtieth potency. Another serious criticism of his work is the fact that he incorporated into his data the results, noted by Dr. Burleigh Parkhurst, of radio-active water which is in no sense radium bromide.

In 1911 (Journal Am. Institute, August) W. H. Dieffenbach of New York published "The Proving of Radium Bromide." Complete physical and laboratory tests were made of all provings and the 30X-12X and 6X potencies were employed. The proving was made from the purest obtainable radium bromide of an activity of 1,800,000 to 2,000,000, the original trituration being made personally by Mr. E. W. Runyon of Boericke, Runyon Co., of New York, in presence of Prof. Pegram of Columbia University, who weighed out a definite quantity of the radium.

After a lapse of about two years since his proving, Dieffenbach has published the "Verifications of Symptoms of the Proving of Radium Bromide" (Chironian, Dec. 1912). I will quote the chief verified symptoms as noted by him:—

I. Severe aching pains all over the body, with restlessness; better by moving about. Pains gradually subside after continued exercise.
II. Periodical sharp pains in joints; better after continued motion in the open air.
III. Burning sensation of the skin, itching all over the body.
IV. Vertigo.
V. Dryness of the mouth (especially after etherization).
VI. Colicky pains in abdomen, with passing of foul flatus.
VII. Catarrhal or interstitial nephritis with rheumatic symptoms corresponding to provings.
VIII. Irregular or delayed menstruation, and dysmenorrhea.
IX. Dry, tickling cough, better at night while lying in bed.
X. Dull backache, lower lumbar region, better after exercise.
XI. Sharp pain in the small joints; dull pain and soreness of muscles. It is in rheumatism and gouty arthritis especially that verifications of symptoms have accumulated.
XII. Pruritis, itching of the skin, with burning; chronic acne, has been relieved.

Conclusions.

1. There is no danger from radium in the hands of those who understand its use and it has an advantage over X-ray in that the out-put of its radiations is uniform in amount and quality, whereas that from an X-ray tube may be very uneven as regards both of these.

2. Radio-therapy offers a painless and elegant method of palliative treatment after lymph and blood vessels have become involved, although the rays are limited to a narrow field of action.

3. Radium is a useful adjunct to the treatment of all cases, first as a prophylactic after operation, and, failing operation, the next best method we possess.

4. Radium is more successful when it is the first treatment employed than when it is used after operation, X-rays or other forms of treatment, although under these circumstances it does well.

5. The application of pure radium salts in sufficient amounts properly used is a harmless and efficient method of treating superficial new growths.

6. Its analgesic action is noteworthy.

7. For keloids, unless extensive, it is by far the best known remedy.

8. When the technic becomes so perfected that all cancerous tissue can be effectually destroyed by rays applied from all sides, then radio-therapy can be regarded as a certain cure for cancer.

List of Radio-active Elements (Rutherford).

Element	Radiation	Half Value Period
Uranium	Alpha	6×10^9 years
Uranium-X	Beta & Gamma	24.6 days
Uranium-Y	Beta	1.5 days
Ionium	Alpha	20,000 years &
Radium	Alpha & Slow Beta	2,000 years
Emanation	Alpha	3.85 days
Radium-A	Alpha	3 minutes
Radium-B	Beta & Gamma	26.8 minutes
Radium-C		
C^1	Alpha & Beta & Gamma	19.5 minutes
C^2	Beta	1.4 minutes
Radium-D	Slow Beta	16.5 years
Radio-Lead		
Radium-E	Beta & Gamma	5 days
Radium-F	Alpha	136 days
Polonium		
Actinium	No Rays	?
Radio-Actinium	Alpha & Beta	19.5 days
Actinium X	Alpha	10.5 days
Emanation	Alpha	3.9 seconds
Actinium-A	Alpha	.002 seconds

Actinium-B	Slow Beta	36 minutes
Actinium-C	Alpha	2.1 minutes
Actinium-D	Beta & Gamma	3.47 minutes
Thorium	Alpha	3×10^{10} years
Mesothorium	No Rays	5.5 years
Mesothorium. 2	Beta & Gamma	6.2 hours
Radio-Thorium	Alpha	2 years
Thorium-X	Alpha & Beta	3.64 days
Emanation	Alpha	54 seconds
Thorium-A	Alpha	0.14 seconds
Thorium-B	Slow Beta	10.6 hours
Thorium-C		
C^1	Alpha	60 minutes
C^2	Alpha	Very rapid?
Thorium-D	Beta & Gamma	3.1 minutes

THE BLOOD PICTURE OF CHLOROSIS.

By Helmuth Ulrich, M.D., Boston.

Chlorosis, a disease occurring almost exclusively in young women between the ages of 14 and 25, is supposed to be due mainly to bad hygienic surroundings. Very little is known of its pathological anatomy. Indeed, the large number of theories that have been advanced in an endeavor to explain the nature of the disease are evidence of our ignorance. Two of these views, that of bone-marrow deficiency and the one of excess of plasma, seem to have a better scientific basis than the others.

Most observers, no doubt, feel that the theory of bone-marrow deficiency explains, better than any other, the blood picture, symptoms, and course of the disease. The red cells are small and poor in hemoglobin. Polychromasia and neucleated red cells, both of which are indications of regenerations, are rare or absent. Even the white cells of the polymorphonuclear variety are diminished in number, a fact of especial significance since the lymphocytes, chiefly or wholly formed in lymphatic tissue and only in negligible quantity or not at all in bone-marrow, are not reduced in number. All of these phenomena point to an insufficient activity of the chief hemapoietic tissue, the bone-marrow.

Clinically, too, there are facts that accord with this view. The disease often follows unhygienic conditions, and it always begins at an age when a special strain is put upon the organs concerned in hematogenesis. The ready curability of the disease with iron is more easily explainable on this hypothesis than on any other.

To recognize the blood changes characteristic of chlorosis or any other disease, it is, of course, necessary to understand the normal blood picture.

The normal averages of red cells per cmm. of blood usually given are 4,500,000 in women and 5,000,000 in men. I am convinced that these figures are too low, at least for this and probably some other localities, and I feel that 5,000,000 for women and 5,500,000 or even 6,000,000 for men coincide more nearly with the truth. The normal form of the erythrocytes, until recently thought to be biconcave, is now known to be cup or bell-shaped. On a microscopic slide the cells flatten out and show a fainter central area surrounded by a darker peripheral zone. This is due to the unequal distribution of the cell contents. Unless there has been mechanical distortion when the smear was made, the cells are regular in shape and practically circular in outline, with a diameter of about seven microns. Abnormal cells of larger or smaller size, termed megalocytes and microcytes, respectively, are encountered in most anæmias.

The leukocytes in normal blood are of four chief types, the polymorphonuclear neutrophiles, lymphocytes, eosinophiles, and basophiles. The neutrophiles constitute about 70 per cent and the lymphocytes about 25 per cent of the total number of white cells.

The blood platelets are smaller than the other cells and their normal average number may be taken as 300,000 per cmm. of blood.

Chlorosis is an anæmia, and, therefore, the most important changes in the blood are those affecting the red cells. Their number is usually not very low, averaging about 3,500,000 per cmm. of blood. Counts below 2,000,000 are rare, whereas normal counts are not infrequent. The hemoglobin percentage is always low, especially relatively; that is, the diminution of the hemoglobin is greater than that of the red corpuscles. The ratio of the hemoglobin percentage and the number of erythrocytes per cmm. of blood is called the color index. In chlorosis this is always low, usually between 0.3 and 0.6, showing that the red cells do not carry their normal burden of hemoglobin. They are, therefore, very pale, the blood is watery, and its specific gravity is low. The actual number of red cells in the body is probably not far from normal, because the total amount of blood is increased. By some this increase is looked upon as the essential pathological and even etiological feature of chlorosis, while most of those who support the theory of bone-marrow deficiency consider the excess of plasma an effort to have the normal rate of passage of hemoglobin through the lungs kept constant.

The erythrocytes of chlorotics are not only paler than those of normal individuals, but they are of smaller average size and show various forms of pathological distortion, or poikilocytosis. This is usually proportional in severity to the degree of anæmia. Polychromatophilia, both diffuse and granular, and nucleated red corpuscles are usually absent. During convalescence there is a rapid increase in the quantity of red cells, but they remain small and pale for a long time after the patient is apparently well.

The only change affecting the leukocytes is leukopœnia at the expense of the polymorphonuclear cells, with a resulting relative lymphocytosis.

The blood platelets are more numerous than normally and may be as abundant as the red cells.

The outstanding features that are especially serviceable in the diagnosis of chlorosis are, first, the usually pretty definite clinical picture: the sex, the age, the greenish pallor; second, the hematological picture: the low color index, the small size and pallor of the erythrocytes, the absence of regenerative types; third, the ready response to iron therapy.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 6-E. Obsessional Neurosis.

The patient is a woman 36 years old, born near Boston of American parents. Her father is a successful business man, but is fearful about himself and consults his physician on the least provocation. Her mother is peculiar and has had one attack of manic depression. There are four children: one has tuberculosis, one slight heart disease, a third is mildly alcoholic. Intellectually they are all above the average.

The patient's early life was not unusual except that she was a moody child and from an early period had headaches. She did well in school and completed high school. She has always been considered as odd by her friends, and at home has been increasingly difficult to get along with. She has been reticent and retiring in the presence of strangers, at times rude and refusing to speak to them.

Some three years ago as she was getting worse she was persuaded to take up Christian Science, especially because of her headaches. Being of a logical turn of mind she attempted to get sense out of it. The more she read the more bewildered and confused she became. In her own record of the case she says "The night I finished Mrs. Eddy's book I read from ten until two. When I had read it this queer, queer pain began in the top of my head. It ran to the back of my head, then it seemed as if a fire ran into my mouth and around. I heard a voice (in imagination, as one would in a dream) say 'Hello, dear.' The voice was very sweet. This is the hardest of all to write because at times it does not seem as if it could really have happened. My misdemeanors and sins seemed to come before me and I kept thinking how sorry I was and that I would do better in the future." She got only worriment and annoyance out of Mrs. Eddy's philosophy, and continued to grow worse. The headaches increased as did her temperamental oddities. She distinguished two kinds of headaches, one a real pain and the other, a more constant one, being a sense of distress and confusion "as from a disturbance of thought." Finally she became so much out of accord with the family that it was deemed wise to send her away. At this time she had a habit of gathering odd things—dishes, doylies, silver, etc., from the house and locking them up in her room. She was capricious, whimsical, impulsive, obsessed. She wanted to wear somebody else's shoes or dress; had periods of depression and weeping or would be morose refusing to converse. Would run out in the hall in her night clothes as if she were frightened. She had lost weight

and was very restless especially at night, when she would move the furniture about regardless of the comfort of others.

Patient seemed a case of neurosis and was urged to use her superfluous energy in writing down her thoughts each day without reference to their importance or sense. This she did and I will let her tell her own story, but as it is very long it will have to be much abridged.

"There is no rhyme or reason in all this and I only wish it were done and over with. Just now it came to me that I should jump out of bed and go tearing all over the house. I wish I understood the drift of Dr. Ring's methods in wanting me to write down all my thoughts. I must be pretty badly off to be willing to put such things on paper, but then I do so want to be better. Anyway the head is better than it was, it does not ache so much and when I am writing the ache will go away altogether. I am sleeping better, too, and that is so nice! It was so dreadful to be awake all through the night and my thoughts kept crowding so one on top of the other . . . I have had a bad headache all the afternoon and I would not write down my thoughts, because all I thought of was my sins and everything wrong that I had done in my life. My pride, my wicked pride kept me from being willing to put down the things I have done, and the things I should have done that I have not done . . . My imaginary sins bother me so much, but the things I have really done, except to think some one might know, has not troubled me,—that is my pride. All of the commandments that I have not broken in imagination, I have done so in reality—I have been deceitful, stingy, mean, a liar and a thief. . . . There is a man, he is married now and I have not seen him for four years (Note. This was the time of beginning of her breakdown. Ed.) He used to make love to me, kiss me and put his arms about me . . . I remember the first time he kissed me, I was so mad . . . He used to take me canoeing on the river, I liked it and I liked having a man take me. My family never met him and he was not a man my father would have liked me to know. When I went with him I always told some lie or other—we went to the theatre and to lunch in Boston . . . I wrote him many letters and I had many from him . . . I burned his letters and his picture long ago. I have always been thankful that nothing happened that should not happen. I did not really love him, he just fascinated me. My nature is passionate and that is all he appealed to . . . Three times I came near slipping up but I did not—Once out canoeing, once at the Canoe Club and once at home after the theatre . . . Also I saw him several times after he was married. That was all my fault too—I hated to give him up. I did things I should not do, I let him kiss me—and then I pretended to be so good. I am just a hypocrite."

Here then was the psychic trauma—the emotional conflict between her fundamental animal nature and the social code to which she was bound by virtue of her teachings and environment. We all face this conflict, but this woman's innate psychic soil happened to be of a neuropathic type which demanded a greater degree of internal harmony than usual in order to preserve an easy and comfortable adaptation to its environment. The result of the conflict she also tells, though she had not joined cause and effect in her own mind.

"It gives me headaches to read (she has amblyopia) but it just serves me right for reading after I have been told not to. I don't really think it is my eyes because the minute I begin to write that headache goes away a little at a time (suggestion). Just think, before Dr. Barbara left today I had that dreadful feeling of grabbing her by the throat . . . If I cry any more I shall have a real headache—so Dr. Ring says he will bring these writings all back and will talk them all over—Isn't once enough to go through with such things? Well I suppose he knows, but sometimes it seems like hell! I wonder why we are born to suffer with such minds. It seems as if it would take a long time to unravel this tangle. The only thing that seems to help my head is to put down all my sins . . . now how dreadful, I asked the nurse for a knife to sharpen my pencil, after she had brought it she stood up close to the bed while I used it . . . All the while I had the pen-knife in my hand all I thought of was that I would jab it into her anywhere so long as I stuck it in good and deep—the same miserable feelings I used to have long ago. When I sat down to the table near the carving knife my fingers ached to pick it up and pull it across my throat—I have had this thought many times. One day I remember standing near a bureau on which was a pair of scissors, the thought came quick as lightning,—'pick up the scissors and cut your throat.' I turned away in horror and lay on the sofa trembling. Then, too, in those days, and since also when a person said anything to annoy me I would think, if only I had my fingers on that person's throat I would choke the life and breath out of her. The horror of it would strike me and I dreaded that sometime I should do such a thing if I lost my self-control. I want to get over these horrors that stay by me day and night. I must settle about these dogs . . . Well to begin with, a mouse was in the room one night, so—in imagination—I chased that mouse out of the way, then later I heard cats a-wailing outside; then in imagination, I wished to have the noise cease and the cats stopped yelling, or I thought they did. Then once more (same night) the dogs began to bark. This time I said to myself, How absurd! Let the dogs bark! I won't have any more nonsense. The dogs kept on

barking . . . Since then hearing a dog bark or seeing dogs near me, I imagine they will go at me."

Dogs frequently enter into the patient's train of thought and must have been present during some period of psychic trauma, though I did not learn just what experience, perhaps one of the nights of her theatre escapades or the like. This is what Freud means by the accidental moment. It would be safe to assume that during the noise of the mouse and the cat she was sufficiently pleased with her train of thought to deliberately exclude these intruders, and that by the time the dog was heard remorse had set in, and so the barking coupled itself in consciousness with the revengeful and antagonistic mood then present, thus becoming the accidental, intellectual symbol of these emotions, the memory of the real causal experience being suppressed because not acceptable to her better self.

"That night (after reading 'Science and Health') the fierce headaches began which lasted so long. For three nights I was in a state of dose. The nurse thought I slept but I did not. I imagined all things from going up to heaven down to the other way. I saw my funeral, every one was sitting around, then I (in imagination) went into a casket, was put into a carriage, heard the door slam (may be there was an entertainment at some house, for there seemed to be carriages in the street) and was driven away, put into the ground and worms began . . . One of the other nights was bad, something kept coming nearer and nearer, it seemed to be the devil—he came down the hall, a long hall, to my room. When he arrived at my door I thought the handle clicked as if some one would open the door." To Freud the worms, and the devil coming to the door would be wish fulfilments.

From mythological times the devil has served as the outward excuse and symbol of the bad in us—she wished a man to come to her but it was wrong, therefore, he was the devil. Of course, in her waking state she would not have acknowledged this, and even in her dreams she transposes it to a form admissible to her censor (or better self). When in Goethe's great drama Marguerite finds herself pregnant it is Faust who stands malignly by and is blamed.

To Freud all penetrating articles are symbols of the male organs, scissors, knives, worms, etc. The snake, of course, is the traditional symbol that plays its tragic part in the dramatic fall from grace in Eden. In our patient's case scissors, knives, worms, etc., were all used at different times both waking and sleeping.

This patient might well have passed as a case of maniac depression so manic was her behavior at times and she was not accessible to conversation or explanation, so that the early experience could not be obtained. Could these have been carefully worked out I

believe that she might have been entirely cured. As it was, after about two months of this work she went away impulsively and could not be persuaded to return for further treatment. However, she became rapidly better. After two weeks her sister reported that she was better then than she had been for years, and with the exception of a month some two years ago when she became self-accusatory and depressed, has now remained a pleasant and acceptable member of the household for four years. She was born with a literal and one idea type of mind, and this one could not expect to undo.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

SUGGESTION VERSUS PSYCHOANALYSIS.

In a recent critical paper on Psychoanalysis which appeared from the pen of Dr. Francis X. Dercum in the March 7th number of the Journal of the American Medical Association, the author concludes that Psychoanalysis is merely a new, bizarre and rather cumbersome method of suggestion, and that ere long it will take its place among the other defunct therapeutic methods. We are willing to grant that all therapeutic methods possess a degree of suggestive value proportionate to the confidence which the ministering physician has been successful in stimulating in his patient. Anyone of experience will grant that a tonic or laxative tablet may have quite different effects on the same patient according to the confidence which he places in the giver. Within a few days it was the writer's experience to see a 10 gr. powder of veronal fail to produce sleep in a hypochondriac because given by a man in whom he had lost confidence, whereas, a good night was secured on a similar powder of sac lac and salt given by another man. However, it is equally true that none of us would feel that the total value of a potent remedy was psychic. It seems to us that what is true of drugs in this sense is also true of psychoanalysis. The detailed care with which the patient's life experiences must of necessity be scrutinized and the patient hours of questioning and explanation that are demanded by the method cannot but bring vividly before the mind of the patient the earnest desire on the part of the physician to be of all possible assistance and this reassurance naturally gives an excellent background that opens the channels of credulity, and therefore, of suggestibility. It is common knowledge that in light hysterical states one can, in a few office calls establish sufficient confidence to explain away the patient's symptoms through conversational methods so well described by DuBois in his book, "The Psychic Treatment of Nervous Diseases." Such a method might well be termed "suggestive therapeutics" and would include all that is meant by the

terms "re-education and explanation." Such a method, however, falls far short of unravelling the mainsprings of action hidden deep down in the early unconscious memories of the child-mind. It is just here that psychoanalysis may be said to differ from suggestion, for suggestion influences only those memories and conditions of the mind which are above the threshold of consciousness, while psychoanalysis delves into the unconscious memories and attempts to join them link by link, often through devious paths of the individual's life experiences, and by unifying them and rendering them acceptable to his better self disburses the patient's abnormal ideas, fears or acts which distressed him, or rendered him difficult of adjustment to his environment.

It will be seen that in neither suggestion nor psychoanalysis is there any need to purposely invoke hypnosis; it is true that in Freud's earlier work he advocated obtaining information of unconscious memories through the medium of hypnosis, but he later abandoned this method. We have found that it is not uncommon for the average person to confuse in his mind the words suggestion and hypnosis and it is common to see in literature the expression "hypnotic suggestion." This is an unfortunate confusion of terms, since both words alone stand for different methods. In hypnotism the subject is more or less uncritically obedient to the command of the operator, while in suggestion the subject's critique remains active and he possesses the power of choice. For this reason the word suggestion summarizes the most acceptable psycho-therapeutic method of the day, namely, that of explanation, persuasion and re-education. It is evident, therefore, that, of the two, psychoanalysis is more closely related to hypnotic methods than to suggestion, but that they are really all quite different procedures each valuable in its own place, and like all things of value potent for great harm or good, depending upon the skill and the wholesome mindedness of the operator.

A. H. R.

POLEMICS IN MEDICINE.

The clinical test is the ultimate criterion by which we judge of the efficacy of the manifold methods of treatment. The results of laboratory investigation frequently afford suggestions as to methods of treatment. The interpretation of the results of laboratory research as well as of therapeusis is often open to question, and it is this variety of possible interpretations with other numerous theoretical considerations and doctrines which affords a field for controversy.

Polemical discussion, as a legitimate department of medical literature, although liable to abuses, is at the present day unfortunately neglected. There is a tendency to stigmatize polemics with such gently deprecatory terms as "internal dissension," "puerile bickering," etc. Such a tendency is unjust and myopic. Controversial discussion of various homœopathic and other doctrines strongly tends to dispel stagnation; it is perhaps more generally acceptable to readers than any one class of literature; it interests and provides opportunity to students and young graduates for the obtaining of information on unsettled questions, and what is more valuable, opportunity to weigh and judge for themselves; it necessitates accuracy and coherency of thought and statement; and it affords a field of research and endeavor for that majority of practitioners which is unable to expend its excess energy in laboratory experimentation. The height of the literary plane upon which such discussions may be conducted is limited only by the several abilities of the disputants. It is obvious that any one of the advantages enumerated above is worthy to be the subject of a whole sermon.

In polemics, however, we must realize that advance can never come from ignoring or minimizing real differences of conviction. We may and should fight for our legitimate right to our own judgment and opinions we should realize that others are possessed of that same right, hence we should not in bellicose spirit try to force our opinions upon them. The holding of opinions possesses integrity or justification, either intellectual or moral, only so far as the holding is done by seekers after the truth. The differences of honest men are not irreconcilable, for each in all probability retains a measure of truth in his keeping. Neither side will ever annihilate the other, for the conflict is not between truth and falsehood. Neither ought to triumph completely, because neither contestant holds the whole truth in his keeping.

We can debate conclusions, we can debate interpretations, we can debate methods, but we cannot debate facts. So let us not be such as strive more to destroy the truth to which they are opposed, than to establish the truth which they hold; and let us be guided by the fact that, ultimately, opposing tendencies will be resolved, not by compromise, *but by comprehension.* S. B. H.

"SWINGING 'ROUND THE CIRCLE."

The President of the American Institute has just returned home after touring ten States of the Middle West. The object of the tour was utilitarian and somewhat missionary in character.

Ten States so shifted the dates of their respective annual meetings as to make them occur successively and thereby make it possible for the President to make a "one night" or "one day stand" at each. The trip was rather unique in that it gave him the opportunity of getting first hand information of the relative strength and interest of the various societies and localities. While the undertaking has been decidedly strenuous in character, consisting as it did of evening addresses, after-dinner speeches, operating at clinics, and nights of travel, yet it was productive of good results. In every instance the widely advertised fact that there would be features of unusual interest presented at the meeting resulted in bringing out a larger attendance, larger in many instances than the respective societies had had for many years previous. The enthusiasm everywhere was marked. Some places it got to the pitch of being "red hot." No one attending those meetings could for a moment doubt that there is a marked revival of interest in Homœopathy, not only amongst the physicians but amongst the laity as well.

In three separate instances newspaper men came up to the President after the meeting and said practically the same thing: "Doctor, all your Cause needs is publicity. The public believes in Homœopathy just as much as it ever did; the only trouble today is that it has not been presented to them forcibly and frequently. Your Cause has suffered through silence and indifference. Tell the public in forcible language what you are doing. If the facts which you have presented here tonight were generally known by the reading newspaper public Homœopathy would be in the medical ascendency."

An astute business man of Kansas City said, "You homœopathic people need only a Moses to lead you to the promised land of victory. Your Cause is sound and the people willing, but you need a "leader." In four states the Governor of the State either introduced the President or spoke on the platform with him. In Iowa City the newly elected President of the Iowa State University introduced the President and showed plainly that his sympathies were with Homœopathy. That in a State where there is a homœopathic department in connection with the State University means much. In Columbus the President of the Ohio State University was a fellow speaker with the President and made it clear that he was not opposed to a homœopathic department of medicine in the Ohio State University. The splendid attendance at the ban-

quet given in Columbus and the class of men present must have impressed President Thompson deeply with the earnestness displayed in the cause of Homœopathy. In Chicago there was an attendance of four hundred members of the Illinois State Society. The banquet was a brilliant affair and crowded to the utmost the spacious banqueting hall of the La Salle Hotel. In Minneapolis the Unitarian Church was well filled on the evening of the President's address, by a mixed audience of physicians and laity. It was here that the representative of the press spoke of the need of publicity. At the banquet the following evening two hundred guests sat down to dinner, and before the meeting was over the enthusiasm reached a pitch that has rarely been seen at a medical meeting.

The dominant note in the President's address before each Society was steadfastness of purpose, loyalty to the Cause, better organization, greater cohesiveness, and a definite objective point. These requirements were hammered home with a force not to be forgotten. In the meeting at Milwaukee, Wisconsin, where the attendance was the smallest, nearly fifty per cent of those present signed pledge cards for the propagandistic fund and paid their first year's assessments. That was an enthusiasm backed up by action.

The splendid work accomplished by Mr. Arthur Warren Smith at Kansas City under the direction of the Institute through the Council of Medical Education, demonstrated what a Business Manager can do for the Cause of Homœopathy. Through his untiring efforts Kansas City will in the near future have a Medical College and Hospital which will be equal to many of our best medical colleges in the country. It will not only be equipped with every requirement for modern teaching, but it will have an endowment sufficient to carry the requisite number of paid instructors. What Mr. Smith has done in Kansas City can be done in every one of our college cities of the country, namely, to put them on a first-class financial, scientific, and professional basis. He can do more;—he can popularize the cause of Homœopathy throughout the country.

Friends, the victory is ours if we will be sufficiently energetic, optimistic, diplomatic, determined, and united to go forward and take it. Come to Atlantic City and witness the step toward that end!

ANOTHER HOMŒOPATHIC VICTORY.

The following telegram is another evidence of homœopathic victory.—

Marion, Ohio, May 27-14.

Dr. DeWitt G. Wilcox, 419 Boylston St.

Substance of Resolution handed me today by President Ohio State University Board Trustees Ohio State University declared time has arrived for establishment of College of homœopathic medicine in State University. Board to Proceed to Open Facilities September. Another Great Victory.

Dr. Chas. E. Sawyer, Marion, Ohio.

When the Cleveland-Pulte Medical College finished its course this Spring it became evident that the College would not again open its doors for the reception of students. This was sad news to the homœopaths at large and particularly to the alumni of this College, the first homœopathic college to be established in the United States. The causes leading up to this closing were many, chief of which was internal dissention, that bete noir which never fails to destroy whenever present. The College was not on the recognized list of standard medical school and the students were leaving. Immediately steps were taken by the Council on Medical Education of the American Institute to secure a homœopathic department in the Ohio State University at Columbus. This attempt has met with bitter opposition on the part of old school interests. The American Medical Association had a man on the ground to fight us. Here again we have won out! That the splendid big meeting of the Ohio State Society held in Columbus, May 11, concerning which mention has been made under the head of "Swinging 'round the circle," was no small factor in bringing this matter to a head, is assured. The large number of enthusiastic, determined, able physicians who attended that meeting carried a tremendous influence. Too much praise cannot be given to the indefatigable efforts of the Council on Medical Education and especially to its representatives, Dr. C. E. Sawyer, Marion, Ohio, Dr. W. A. Dewey, Ann Arbor, Mich., and Dr. W. B. Hinsdale, Ann Arbor.

What will be the next victory?

SOCIETIES.

Connecticut Homœopathic Medical Society.

The sixty-fourth annual meeting of the Connecticut Homœopathic Medical Society was held at the Hartford Club, Hartford, on Tuesday, May 19. About forty members were present during the session.

In the absence of the President, the Society was called to order by the Vice-President, Dr. Frederick E. Wilcox, of Willimantic, at 11 A.M.

Drs. Hooker and Colgrove were appointed to audit the Treasurer's report.

The minutes of the semi-annual meeting were approved as printed.

The Treasurer's account, having been duly audited, his report was read, showing a balance on hand of $170.08. Report was accepted and placed on file.

The Secretary made a verbal report showing work done during past year.

A letter was read from the President, Dr. Royal E. S. Hayes, telling of his inability to attend the meeting on account of illness and expressing his regret, and his hope that the meeting would be a profitable and successful one. The Society instructed the Secretary to write to Dr. Hayes and tender its sympathy and hope for an early restoration to health.

Dr. Grace Stevens was welcomed as a representative of the Massachusetts Hom. Med. Society, and the privileges of the Society extended to her.

The By-laws were suspended, and the Secretary was instructed to cast the ballot for Dr. B. S. Adams of New Haven, to succeed himself as Censor for the ensuing five years.

Drs. Hooker, Hall and Case were appointed as temporary Censors.

Dr. Augustus Angell of Hartford, was unanimously elected to fill the vacancy on the Legislative Committee caused by the death of Dr. C. E. Sanford of Bridgeport.

The Board of Censors made a favorable report on application for membership from,

Dr. Payton F. Anderson, of Waterbury, N. Y. Hom. Med. Coll. and Flower Hospital, 1913, and Dr. J. Bruce Crook, of Lyme, N. Y. Hom. Med. Coll. and Flower Hospital, 1913, and they were elected to membership.

Drs. A. J. Phillips of Derby and Clarence N. Payne of Bridgeport were appointed a committee to draft suitable memorial resolutions relative to our late associate, Dr. C. E. Sanford of Bridgeport.

The following officers were unanimously elected for the ensuing year:

Pres., Dr. Frederick E. Wilcox, Willimantic; Vice-Pres., Dr. George E. Evans, Branford; Treasurer, Dr. Henry P. Sage, 48 Howe St., New Haven; Secretary, Dr. Samuel Worcester, "Woodscourt," South Norwalk.

The Commitee appointed at the semi-annual meeting to prepare a memorial to the American Institute of Homœopathy in regard to establishing an American College of Homœopathic Surgeons, and also in relation to an impartial rating of Homœopathic Medical Colleges, made an report which was accepted. This report has appeared in print and has been forwarded to the proper authorities of the Institute.

Dr. E. C. M. Hall, Sec'y of the State Board of Medical Examiners, made a detailed report of work done during the past year, and of licenses granted.

Drs. Edward B. Hooker and Charles H. Colgrove made an earnest appeal for increased membership of the American Institute.

Dr. Frank H. Barnes of Stamford, tendered his resignation as member of the Society, and the same was accepted.

Voted to hold the semi-annual meeting in Waterbury, on the third Tuesday in October, 1914.

The following papers were read—

1. The Relation of Homœopathy to Modern Medicine. Stuart Close, M.D., Brookly, N. Y.

2. How to get the Patient to confess his Remedy. Richard Blackmore, M. D., Farmington.

3. The Comparative Value of Symptoms. Hugh A. Cameron, M.D., Waterbury.

4. The Repertory; Methods of Use; Illustrations. Erastus E. Case, M.D., Hartford.

5. Résumé of Work on Cancer Serum to date. Howard W. Nowell, M.D., Boston.

6. Résumé of Cases treated with Cancer Serum. M. J. Adams, M.D., New Haven.

All of these papers were of merit and listened to with much interest. The discussions that followed were participated in by many members of the Society and great interest shown.

A rising vote of thanks was tendered to Drs. Close and Nowell for their valuable papers.

The Society adjourned at 4.30 P.M., after a most profitable and interesting meeting.

SAMUEL WORCESTER, M.D., *Secretary.*

Homœopathic Medical Society of the County of Kings.

The 474th regular meeting of the Homœopathic Medical Society of the County of Kings was held at the Medical Library Building, Brooklyn, April 28, 1914, the President, Dr. John F. Rankin, in the chair.

Dr. Schenck, chairman of the Legislative Committee, reported that the Committee had taken action on the bills before the New York State Legislature, and telegrams had been sent to the members of the Senate and Assembly protesting against the bills legalizing osteopaths, Christian scientists and chiropractors. He stated that the Governor had signed the bill legalizing osteopathy but had not approved the bill doing the same for the Christian scientists and chiropractors. Dr. Schenck said that he believed the members of the Society should take part in the primaries of the coming election to ascertain the position of candidates for the Legislature on the question of medicine, and to oppose those who were in favor of the admission to practice members of the societies who are not educated as the members of the medical profession are required to be. Dr. Schenck also stated that the bill which had been signed by Governor Glynn licensed three hundred and fifteen osteopathists who were let in in 1909 and some others who are now full-fledged physicians, and they are now empowered to sign D. O. after their names. The Court of Appeals had decided that they did not have power to sign death certificates, but were specially licensed, so they got the bill through this year that incorporates the osteopathic societies, with powers that were cut out by the Court of Appeals.

Dr. Schenck stated that as a member of the Committee of the American Institute of Homœopathy to which was referred the matter of obtaining proper recognition for homœopathic surgeons before the Board of Governors of the American College of Surgeons, he had received word from Dr. Wood, Chairman of the Committee, that the Board of Governors have unanimously adopted a resolution to accept the nominations of the American Institute of Homœopathy on the same footing as the other medical organizations of this country. He said that he felt that it was one of the greatest triumphs that Homœopathy had ever won, and he was gratified that his name had been associated with the victory. The work had been done principally by Dr. Wood and Dr. Wilcox.

L. D. BROUGHTON, *Secretary.*

Twentieth Century Medical Club Reception.

A charming occasion was the annual reception of the Twentieth Century Medical Club (Women's) which was held on the evening of May 20th at Hotel Charlesgate. About thirty members and guests were present.

A fine entertainment program was provided by Dr. Mary E. Mosher. It consisted of songs by Miss Isabel Stevens, contralto, Miss Nina Hatch, soprano, duets by Misses Stevens and Hatch, readings by Miss Gladys Cripps, and exhibition dancing by Mr. Earl Shroeder and Miss Alice Fessenden, who had won the cup contest for dancing at the Boston Theatre the previous

evening. Dr. Mosher added much to the gaiety of the occasion by the recitation of some original humorous skits.

Following the entertainment, refreshments were served and a social hour enjoyed. The guest of honor for the evening was Dr. Florence Duckering, surgeon on the staff of the New England Hospital.

At the business meeting which preceded the reception, the following officers were elected for the ensuing year: President, Dr. Barbara T. Ring; Vice-President, Dr. Grace A. Jordan; Secretary, Dr. Grace E. Cross; Treasurer, Dr. Marion Coon; Auditor, Dr. Eliza B. Cahill; Censors, Drs. Mary E. Mosher, Lucy Barney Hall and Helen S. Childs.

GRACE E. CROSS, *Secretary.*

American Medical Editors' Association.

On June 22nd, 9 A.M., the above-mentioned Association will meet at the Marlborough-Blenheim Hotel, Atlantic City, N. J., under the Presidency of Dr. E. A. Vanderveer of Albany, N. Y. An unusually attractive programme is being prepared. Among the papers are the following:

President's Address: E. A. VanderVeer, M.D., Albany, N. Y.

"Relation of the Medical Press to the Cancer Problem," by Mr. Fred'k L. Hoffman, Statistician of the Prudential Insurance Company, Newark, N. J. (By invitation.)

"The Things That Count in Medical Practice," by H. Edwin Lewis, M.D., New York.

"Ideal National Medical Journal: What It Should Be and What It Should not Be," by W. J. Robinson, M.D., New York.

"Two Problems of the Organization Journal: The Mediocre Paper and the Editorial Department," by Sarah M. Hobson, M.D., Chicago, Ill.

"Medical Journalism as a Local and as a National Proposition," by Thomas S. Blair, M.D., Harrisburg, Pa.

"Medical Books and Journals," by T. D. Crothers, M.D., Hartford, Conn.

"The Medical Periodical and the Scientific Society," by F. H. Garrison, M.D., Washington, D. C.

"Editorial Experiences," by A. L. Benedict, M.D., Buffalo, N. Y.

"The Special Medical Journal," by A. Bassler, M.D., New York.

"The Medical Profession and Its Influence from a Buying Standpoint," by Joseph MacDonald, Jr., M.D., New York.

"The Preparation of the Original Article and the Editors' Latitude," by E. Franklin Smith, M.D., New York.

"He among You Who Is without Sin Shall Cast the First Stone," by Erwin Reissmann, M.D., Newark.

American Proctologic Society.

The Sixteenth Annual Meeting of the American Proctologic Society will be held at Atlantic City, N. J., on June 22 and 23, 1914. Headquarters and Place of Meeting, Hotel Chalfonte.

Papers.

1.—A Review of Proctologic Literature for 1913. Samuel T. Earle, Baltimore, Md.

2.—Abnormalities of the Colon, as Seen With the Roentgen Ray: Lantern Slide Demonstration. Walter Irwin Le Fevre, Cleveland, Ohio.

3.—Coccygodynia: A New Method of Treatment by Injections of Alcohol. Frank C. Yeomans, New York City, N. Y.

4.—The Technique of the Perineal Operation for Cancer of the Rectum. Jas. A. MacMillan, Detroit, Mich.

5.—Myasthenia Gastro-Intestinalis. V. Lee Fitzgerald, Providence, R. I.

6.—Further Observations on the Treatment of Pruritis Ani by Autogenous Vaccines. Dwight H. Murray, Syracuse, N. Y.

7.—A Report of Cases of Pruritus Ani Treated with Carnotite. Samuel T. Earle, Baltimore, Md.

8.—Treatment of Amoebic Dysentery with Emetin Hydrochloride. Alfred J. Zobel, San Francisco, Cal.

9.—Amoebic Dysentery and Its Treatment. William M. Beach, Pittsburg, Pa.

10.—Some Consideration of Colonic Surgery. Louis J. Hirschman, Detroit, Mich.
11.—Myxorrhea Coli, Membranacea and Colica. Sam'l G. Gant, New York City, N. Y.
12.—Hemorrhagic Colitis; with Report of Three Cases. Jerome M. Lynch, New York City, N. Y.
13.—Retro-Rectal Gumma; Report of Two Cases. Alois B. Graham, Indianapolis, Ind.
14.—Anal and Rectal Growths of Benign or Doubtful Character. T. Chittenden Hill, Boston, Mass.
15.—Retro-Rectal Infections. Collier F. Martin, Philadelphia, Pa.
16.—Radium, Its Use in Proctology. J. Rawson Pennington, Chicago, Ill.
17.—Rectal Adenomata. Granville S. Hanes, Louisville, Ky.
18.—Hyperplastic Tuberculosis of the Colon. J. M. Frankenburger, Kansas City, Mo.
19.—Pseudo Intestinal Stasis and Real Intestinal Stasis Demonstrated Roentgenologically. Arthur F. Holding, New York City, N. Y.
20.—Local Treatment of Anal Fissure. Jas. A. Duncan, Toledo, Ohio.
21.—Reflex Symptoms Arising in the Rectum and Anus. George B. Evans, Dayton, Ohio.
22.—Some Unusual Results of Sigmoidoscopy. Ralph W. Jackson, Fall River, Mass.
23.—Crude and Careless Diagnostic Methods: Results of, in Reported Cases of Recto-Colonic Conditions. John L. Jelks, Memphis, Tenn.

BOOK REVIEWS.

The Great Psychological Crime. The Distructive Principle of Nature in Individual life, edited by Florence Huntley and published by The Indo American Book Company, Chicago, (Twelfth Edition). Cloth $2.00.

This book of over 400 closely printed pages is well worth reading. Whether one agrees with it or not one cannot help but have his thought processses stimulated, though quite as often by antagonism as by acquiescence. The style is legal, the argument on behalf of spiritualism being presented in a logical manner. It presumes to be scientific but the very nature of its material naturally precludes such a standpoint. To accomplish this it accepts as proven the continuity of life in a spirit world and refers to "disembodied hypnotists." It attempts to localize the part of the brain through which this soul-intelligence operates in the extreme fore-brain just back of the eyes. The author discusses hypnotism and condemns it roundly, claiming that nine per cent of hypnotized subjects develop insanity, omitting the corollary that brains of the type easily yielding to repeated hypnotism are of the fibre that one would expect to develop mental weakness.

The subject matter is divided into three parts:—First, Modern Hypnotism. Second,—Spiritual Mediumship, Third,—Retributive Justice. Many interesting subjects are discussed and the author, who, by the way, does not care to give his name, is very careful to define each term. This is an excellent virtue in a work of this kind, as much of the literature on psychic and spiritual subjects are useless because of carelessness in the use of ambiguous terms.

We can heartily advise this book to those of our readers who desire to get a clear modern exposition on the subject matter it contains.

The Doctor in Court, by Edwin Valentine Mitchell, LL.D., of the Massachusetts Bar. Published by Rebman Company, New York. Cloth $1.00.

Here is a little book that every doctor should read. The author writes in simple, forceful language and intersperses his wisdom and advice with helpful and interesting examples and applications of the principles advocated. It is not a technical book but tells what the physician should know of the

law as it pertains to his profession. There are 150 pages divided as follows:—Chapter one—Professional Evidence. Second—The contract of the Profession. Third—Civil Responsibility of the Profession. Fourth—Remuneration. Fifth—Confidential Communications. Sixth—The Criminal Responsibility of the Profession. Seventh—Qualifications.

The type is large and readable and the paper light. Altogether it is pleasant and profitable reading.

The Homœopathic Pharmacopœia of the United States. Published under the direction of the Committee on Pharmacopœia of the American Institute of Homœopathy. Third Edition. Revised. Boston: Otis Clapp & Son, Agents, 1914. Pp. 680.

All who are interested in permanent homœopathic literature and who appreciate, even inadequately, the real value, usefulness and importance of a pharmacopœia based upon sound scientific principles by means of which simplicity, uniformity and accuracy in drug preparations are assured, will welcome with unfeigned enthusiasm the appearance of this new, revised edition of the "Homœopathic Pharmacopœia." The first edition of the Pharmacopœia was published in 1897, the second in 1901. At its meeting in Pittsburgh in 1912 the Institute authorized its Committee to prepare a revision of the Pharmacopœia. This work the Committee completed in season to report its accomplishment at the Denver meeting in 1913. The report was favorably received by the Institute and the Committee instructed to proceed with the publication of the work. The book is just off the press and the Committee deserves appreciative commendation for the excellence of its work and the prompt and efficient execution of its duties.

The changes made in this edition include the addition of ten remedies, the omission of nine, as well as changes in chemical symbols and atomic or molecular weights, changes in pronunciation and capitalization, and in many details of a minor character which were necessary to bring the work up to the high standard of accuracy required of a Pharmacopœia.

It would be interesting to review the historical points connected with the Pharmacopœia, to recount the many and varied obstacles to its construction which had to be and finally were overcome, and to pay a tribute to those earnest and whole-souled homœopathists who labored so long and so faithfully to secure *uniformity* in the preparation and nomenclature of our drugs. It appeals to reason that all of the tinctures and dilutions, the triturations and tablets, and all of the preparations of drugs should be collected and made and labelled in the same way and represent exactly the same amount of pure and original drug substance, in all parts of our country; and now that the Pharmacopœia has received the triple endorsement of the Institute and the approval of our pharmacists there will be no necessity for the exhibition of individuality or originality on the part of the pharmacist.

For the information of those not acquainted with the "Homœopathic Pharmacopœia" it may be stated that this new edition contains explicit instruction concerning the general pharmacy of drugs for homœopathic use; a brief historical review; a bibliography; lists of medicine and pronunciation; with some matters of less general interest, besides the Latin and common names, classifications, synonyms, chemical symbols, description, habitat, history, the part used, and directions for preparing tinctures, dilutions, medications and triturations of 694 drugs.

The chief virtues of the Pharmacopœia are that it provides a well defined and unalterable unit of strength as an essential and scientific starting point;—it secures uniformity in the strength of tinctures;—it secures uniformity in the manufacture and notation of dilutions and triturations;—it adopts the decimal system and simplifies methods in homœopathic pharmacy. It is true the great majority of present day homœopathic physicians obtain their drugs from recognized and reliable pharmacists, and are not cognizant of, or as concerned as they should be in, the methods used in their preparation. But the average homœopathic practitioner at least makes his own dilutions, and these certainly should not be made in any haphazard way, but only in accordance with well defined rules and principles. Provings, symptom

lists, pathogenetic records and repertories may be necessary for the selection of an appropriate remedy, but it is the "Pharmacopœia" that furnishes the solid foundation for a reliable materia medica and scientific therapeutics.

As a specimen of the book-maker's art the book is a genuine triumph, and it must be looked upon as an essential part of the equipment of the practitioner's office.

Price in cloth binding, $3.25; half morocco, $4.00.

REVIEWS OF MEDICAL JOURNALS.

The Journal of the American Institute of Homœopathy. April, 1914.

1. *Homœopathy and the Medical Sciences.* F. C. Ford, M.D.
2. *Some Observations on the College Curriculum.* C. A. Burrett, M.D.
3. *Medical Colleges and State Boards of Examiners.* A. C. Umbreit.
4. *The Vital Force.* C. F. Zunkermann, M.D.
5. *Atypical Cases,—A Report.* A. M. Ridge, M.D.
6. *The Value of the Prescription Multiplied.* A. E. Smith, M.D.
7. *Tuberculosis: Diagnosis and Treatment, Open Air, Hygienic, X-ray and Rest.* L. E. Bartz, M.D.

3. A twenty page article dealing with the respective duties and rights of medical colleges and state boards of examiners.

"When a medical college has honestly complied with the spirit of the statutory and reasonable board-made rules and regulations, any further attempt to enforce technical and fine-spun requirements will be defeated by the courts, when registered."

"The law does not recognize any particular school or system of practice as *the* standard of the practice of medicine, and courts will not tolerate for a moment any discrimination, if proven, against any recognized school or system on the part of any board of examiners."

7. A twenty-three page article which covers the ground with admirable thoroughness.

S. B. H.

The North American Journal of Homœopathy. April, 1914.

1. *Surgical Clinic.* W. F. Honan, M.D.
2. *The Lower Border of the Stomach, with Remarks on Dilatation and Prolapse.* G. F. Laidlaw, M.D.
3. *Can We Cure Chronic Interstitial Nephritis?* E. D. Rudderow, M.D.
4. *Medical Colleges and State Boards of Examiners.* A. C. Umbreit.

1. A discursive presentation of a case each of appendicitis and Lane's kink, renal calculus, and strangulated umbilical hernia, outlining many useful points of technic in examination and operation.

3. Rudderow believes that we can lower blood pressure, increase renal efficiency and cause the disappearance of albumin, casts and polyuria—but he believes that these cases did not have contracted kidneys.

4. Published in the Journal of the American Institute of Homœopathy April, 1914.

S. B. H.

The British Homœopathic Journal. April, 1914.

1. *Observations on Glaucoma and Its Modern Treatment.* A. S. Alexander, M.D., C.M.
2. *D. P. H. Work is of Great Use to the General Practitioner.* C. T. Green, M.R.C.S., Eng., L.R.C.P., Lond., D.P.H., Liv. F.L.S.
3. *Clinical Experiences of Some Lesser Used Remedies.* H. F. Woods, M.D., Brun., M.R.C.S., L.R.C.P.

S. B. H.

The Homœopathic World. April, 1914.

1. *The Medical Aspect of a Medico-Social Problem.* E. A. Neatby, M.D.
2. *A Couple of Cases.* H. L. Deck.
3. *The Salts of Baryta.* G. E. Dienst, M.D.
4. *The Subconscious Calculation of Time.* F. G. Scott, M.R.C.S., L.R.C.P.

1. In this article which is to be continued. Neatby takes up the "medical" conditions which have to do with the falling birth-rate.

2. One case of pneumonia in which the administration of arsenic 200 was followed in ten minutes by sleep and in five hours by crisis. "In a case which seemed as grave as this, and apparently hopeless, one could hardly believe arsenic would act in ten minutes."

One case of Bright's Disease,, quoted from memory, temporarily relieved by hyoscyamus 200.

3. Published in the Medical Century.

S. B. H.

The British Homœopathic Journal. May, 1914.

1. *Some Interesting Clinical Cases.* W. P. Purdon, M.B., B.S.
2. *Some Cases of Respiratory Disease Treated with Antogenous Endotoxius.* T. G. Stonham, M.D.
3. *The Problem of Anaphylaxis.* J. G. Hare, M.D.

2. In the preparation of endotoxins, the bacterial emulsion is centrifugalized, standardized, ground for twenty minutes at 0°C and diluted with alcohol. Dilutions were made from 4x to 30x. "In none of my cases did they fail to influence the complaint for which they were given." In five of seven cases, aggravations occurred after the first dose, and in one after every dose. "It made little difference whether the 4x or the 30x was given as to whether aggravation was caused." All doses were given by mouth.

The Homœopathic World. May, 1914.

1. *The Effect of Baptisia in the Production of Typhoid Agglutinius.* R. R. Mellon, M.D.
2. *Herpes Zoster Treated by Injections of Isotonized Sea Water.* A. G. Sandberg, M.D.
3. *Cases from Practice.* R. S. Stevenson, M.D.
4. *The Medical Aspect of a Medico-Social Problem, (cont.).* Neatby.

1. Published in the *Medical Century*, June, 1913.

2. Sandberg reports four cases, all relieved by three or less injections of 30-50 c.c. each.

The Medical Century. April, 1914.

1. *Some Observations with Reference to the Present Day College Curriculum.* C. A. Burrett, M.D.
2. *Some Homœopathic Heart Remedies.* F. C. Askenstedt, M.D.
3. *Size and Repetition of the Dose.* R. del Mas, M.D.
4. *Institute Incidents.* G. B. Peck, M.D.
5. *The Action of the Homœopathic Remedy.* G. W. Coffman, M.D.

2. Askenstedt considers the toxic action of a score of drugs upon the cardiac mechanism and gives indications for their use.

5. Coffman believes that the homœopathic remedy, when given in the proper dose, exhibits a drug force which is the opposite of the disease force and consequently neutralizes it. The action of the drug is in accordance with the principle of contraria, while the selection is to be made by means of the principle of similia. In case this is the proper explanation, only primary and not secondary symptoms should be used in this selection of the remedy.

S. B. H.

The Clinique. April, 1914.

1. *Syphilis and Tuberculosis.* A. C. Tenney, M.D.
2. *Interpretation of Urinary Findings.* C. Mitchell, M.D.
3. *Estimation of Vital Resistance of Patient with Reference to Possibility of Recovery.* G. Houston, M.D.

4. *Modern Scientific Medicine and Its Relation to Homœopathy.* D. G. Wilcox, M.D.
5. *The Treatment of Pneumonia.* H. V. Halbert, M.D.

4. Wilcox shows rather conclusively that homœopathy is a part of modern scientific medicine, the other three parts being surgery, vaccine and serum therapy and psychotherapy.

S. B. H.

The Eclectic Medical Journal. April, 1914.

1. *Quality Verus Quantity.* J. V. Lloyd, Phar. M.
2. *Conium Maculatum in Nervous and Mental Diseases.* T. D. Adlerman, M.D.
3. *Echinacea.* J. Fearn, M. D.
4. *Serum and Vaccine Treatment Doomed.* G. A. Rowe, M.D.
5. *The Pentadactyl Group.* A. J. Howe, A.M., M.D.

1. Lloyd emphasizes that " the *quality* of a drug depends not alone on the weight of the materials; its *physical condition* is all-important," and that in colloidal chemistry is the great field of the future.

2. In three short paragraphs Rowe punctures these "fads." "Scientists ought to make special efforts to discover just what changes take place within or without the body to cause the development of some particular germ. Until that fact is determined it will never be known whether the disease is caused by the germ or whether the germ is caused by the disease."

[Reviewer's Note.] It is evident that the sheep-like tendency may be exhibited in two directions.

The Medical Advance. April, 1914.

1. *The Sanitarium—Its Relation to the Community.* F. W. Patch, M.D.
2. *Malarial Cases and Treatment.* L. C. Smith, M.D.
3. *Clinical Reports.* W. H. Freeman, M.D.
4. *Medical Control.* A Coonley.
5. *Three-Day Treatments.* K.
6. *Gastric Ulcer.* J. B. S. King, M.D.
7. *The Persistence of Potency.* H. B. Stiles, M.D.
8. *Less Faith and More Scientific Study.* C. V. Chapin, M.D.
9. *The Best Method of Selecting the Remedy.* P. P. Wells, M.D.

1. Published in the New Eng. Medical Gazette, March, 1914.
2. Published in the Pacific Coast Jour. of Homœopathy, March, 1914.

7. Stiles claims to have secured favorable results from the use of preparations of dolichos 1m and of lamocerasus 2c which had been corked up for twenty-six years.

S. B. H.

The Clinique. May, 1914.

1. *The Conservation of Hearing.* G. M. McBean, M.D.
2. *Otitis Media, Acute and Chronic.* C. A. Harkness, M.D.
2. *Glandular Extracts in Menstrual Disorders.* P. S. Clark, M.D.
4. *Surgery in Gynœcology.* G. B. Kelso, M.D.
5. *Presidents Address—Northwestern Homœopathic Medical Society.* A. E. Smith, M.D.
6. *Energies in Atoms.* E. S. Bailey, M.D.

The Eclectic Medical Journal. May, 1914.

1. *Quality Versus Quantity.* J. V. Lloyd, Phar. M.
2. *Inflammations of the Uterus.* J. H. Ballmer.
3. *Indican in the Urine.* F. B. Grosvenor, A.M., M.D.
4. *Measles.* S. W. Moreland, M.D.
5. *Medical Legislation.* W. N. Mundy, M.D.

6. *Some Surgical Ideas.* H. H. Helbing, M.D.
7. *Antiseptic Powder.* J. A. Burnett, M.D.
8. *Hew to the Line.* A. P. Hauss, M.D.

1. In the third essay on this theme, Lloyd discusses a dozen drugs to indicate his views concerning the subject of relationships between plant structures and chemical products created therefrom. "Neither the alkaloid nor the element parallels the colloidal structures from which they are made. . . . A poisonous fragment or ultimate, broken out of or created from a plant by chemistry, does not represent the therapeutic qualities of the structure from which it is derived."

S. B. H.

The Hahnemannian Monthly. April, 1914.

A Symposium on the Early Recognition of Cancer:

1. *The Breast.* W. B. Van Lennep M.D.
2. *The Uterus.* D. B. James, M.D.
3. *The Skin.* R. Bernstein, M.D.
4. *Crime: What It Is: Classification; Some of Its Psychology.* F. F. Massey, M.D.
5. *Paranoia.* W. D. Bayley, M.D.
6. *Keynotes of Remedies and Persons.* W. Erwin, M. D.
7. *Arteriosclerosis: Its Etiology and Pathology.* W. H. Steele, M.D.
8. *Statistical Study of Blindness from the Standpoint of Prophylaxis.* H. L. Gowens, Jr.
9. *The Relation of Tissue Pathology to the Cause and Cure of Disorder.* J. C. Loos, M.D.

9. Loos reiterates that a constitutional taint, a disturbed vital force is back of tissue pathology and that remedies for the consitutional taint are the curative ones. She lists a series of recent case reports including such conditions as inoperable cancer, gall stones, chancre, intestinal tuberculosis, etc., which are alleged to have been cured by the indicated remedy.

S. B. H.

Journal Belge d'Homœopathie. January-February, 1914.

1. *The Cure of Neuropathic Conditions.* P. d'Espiney.
2. *Experimental Research on Cancer.* H. W. Nowell, A review by S. Van den Berghe.

Journal Belge d'Homœopathie. March-April, 1914.

1. *The Homœopathic Hospital at Utrecht.*
2. *The Evolution of the Allœopathic School.* A. Hoorens.
3. *Professor Richet and His Instruction as to the Action of Small Doses.* J. Gallavardin. . .

S. B. H.

Berliner Homöopathische Teitschrift. December, 1913.

1. *Concerning Diseases of the Stomach.* Kröner.
2. *A Contribution to the Management of Chronic Diseases.* Sellentin.
3. *The Physical Proof of High Potencies of Radium Salts.* M. Schlegel.
4. *The Innovation Which Must Presently Come.* M. Schlegel.
5. *Proceedings of the Berlin Homœopathic Society.*
6. *A Call to All Friends and Adherents of Homœopathy... Concerning the Preservation of Prescriptions of Drugs in the Pharmacies.* Haehl.

Berliner Homöopathische Teitschrift. February, 1914.

1. *Concerning Diseases of the Stomach.* (concluded) Kröner.
2. *Concerning the Causes of Homœopathic Failures.* Oemisch.
3. *Radiotherapy of Cancer.* M. Schlegel.
4. *Studies in Natural Philosophy.* Dahlke
5. *Pyrogen in Puerperal Fevers.* Kröner.
6. *Experiences with the Plasma de Quinton.* J. Hartman.
7. *The Old and New in the History of Homœopathy.* Drebenstedt.

PERSONAL AND GENERAL ITEMS.

Dr. G. Forrest Martin of Lowell, Mass., sailed for Europe on June 13. He expects to take in some of the leading surgical clinics on the Continent and then to go to London to attend the Clinical Congress of Surgeons to be held July 27 to August 3. He will then go as delegate to the International Congress of Homœopathy to be held at the Hague August 6 to 8.

OFFICE FOR RENT.—A physician having an office in the Charlesgate, 535 Beacon St., Boston, wishes to let for a part of each day an attractive office, fully furnished. For particulars address "G. S. G.," care New England Medical Gazette, 80 East Concord St., Boston.

Dr. Walter V. Hanscom, formerly of Rockland, Maine, has moved to 205 Groveland St., Haverhill, Mass.

Dr. Clifford Mitchell has moved his office to 25 East Washington St., Chicago.

Dr. Emma M. E. Sanborn, class of 1876, Boston University School of Medicine, died at her home in Andover, Massachusetts, on May 24th.

Dr. Marion Shepard, B. U. S. M. 1912, has been appointed Assistant Physician at Smith College for the coming academic year.

The Massachusetts Homœopathic Hospital Directory of Nurses has removed from 9 Haviland Street, to 71 St. Mary's Street, Boston. Tel. Brookline 831. Elizabeth J. Tisdale, Manager.

Dr. David M. Gardner (B. U. S. M. 1900) has opened an office in Milford, Mass.

Dr. Amelia Johnston (B. U. S. M. 1904) died on May 13 at Eglinton, North Toronto, of acute dilatation of the heart.

Dr. Frank C. Richardson, Registrar of Boston University School of Medicine since 1902, has resigned the office and is to be succeeded by Dr. Edward E. Allen, Professor of Anatomy.

Dr. George N. Lapham has been elected by the Faculty as Lecturer on Pulmonary Tuberculosis.

WANTED—Employment during the vacation season of B. U. S. M., by a medical student. Applicant is an experienced teacher of the Italian language and familiar with the classics; would go as tutor or companion or as physician's assistant. Address "E. C.," care New England Medical Gazette, 80 East Concord St., Boston, Mass.

SCIENTIFIC DEMONSTRATION OF HOMŒOPATHIC MEDICINE IN BALTIMORE.

Before a distinguished group of scientists in the Johns Hopkins Physical Laboratory, Dr. L. J. Henderson of Harvard University attested that there is power in attenuated homœopathic medicines of high potency as it is sometimes called.

Dr. Henderson asserted that researches extending over many years had convinced him that inorganic matter contained latent life. He added that he believed that under certain conditions this latent life could be aroused but that infinitesimal attenuations rather than crude substances were necessary.

ADENOIDS AND TONSILS.

Dr. A. Coolidge, before a large audience at a public lecture of the Harvard Medical School, recently made the following statement: "Adenoids and tonsils should not be cut out unless they are doing great harm to the system. Adenoids are found only in children and the profession cannot state definitely what their purpose is for, but we do know that they receive infectious germs that enter the mouth and prevent them from getting into the general system. When they fail to do this, trouble results." The homœopathic school of medicine has long recognized the necessity of keeping the tonsils in a normal condition and this is easily done by properly prescribed medicines. Adenoids will also disappear when the tonsils are kept in a healthy condition. Only in cases which have been left untreated for a long time will surgical intervention be necessary—then look out for tuberculosis.

HOMŒOPATHIC PHYSICIANS IN EUROPE.

Homœopathic physicians having patients who will go to Europe this year may find it helpful to give such a list of English speaking homœopathic physicians in the various cities of Europe.

Dr. Petrie Hoyle "the indefatigable" has with much patience and perseverance secured a dependable list of such physicians. Mr. Homœopath, see to it that your patients have the names of some reliable European homœopathic physician in case of necessity. Don't oblige them to go to old school men when they much prefer homœopathic treatment.

Austria.

Names given by Dr. Sirsch, Jr.

Bad-Castein. Dr. Kubasta.

Vienna. Dr. Ignaz Klauber, Maysedergasse 5; Dr. Hans Kubasta, Blaasstrasse 3, (also Bad-Castein); Dr. Gustave Sirsch, (Jr), Beatrixgasse 14/b.

Belgium.

Names given by Dr. Samuel vanden Berghe.

Antwerp. Dr. Anatole Lambreghts, Rue Stoop 1; Dr. Bonface Schmitz, Longue Rue Neuve 130.

Brussels. Dr. Jaen Dewee, Rue de Trone 32; Dr. Ernest Nyssens, Rue des Drapiers 60.

Ghent. Dr. Samuel vanden Berghe, Rue des Baguettes 34.

Denmark.

Copenhagen. Dr. Thorson, care of new Homœopathic Hospital.

Bronderslev (Jutland). Dr. V. Olsen, (Hahn. Med. Coll., Chicago).

France.

Names given by Dr. Planton.

Paris. Dr. Bernard Arnulphy, Boulevard Haussman 39; Dr. Etienne Boyer, Rue Logelbach 7; Dr. Xavier Jousset, rue de Grenelle 9, (Oculist); Dr. Planton, rue Vital 50.

Lyon. Dr. d'Espiney, Place Bellecour 1; Dr. Jules Callivardin, rue de la Charite 4.

Wichy. Dr. Cotar.

Germany.

Berlin. Dr. Hugo Dammholz, Gneisenaustrasse 3, (S. W. 57); Dr. Friedrich Gisevius, Jr., Karlsbadstrasse 13/14 (w. 35); Dr. Oskar Muller, Victoria Luizenplatz 2 (w. 30); Dr. Honcamp, Schillestrasse 5, (w. 62).

Darmstadt. Dr. Friedrich Sellentin, Wilhelminenstrasse 17.

Frankfurt am Main. Dr. August Grunewald, Heinestrasse 40 (Grunewald).

Kreuznach Bad. Dr. Kranz, Salinenstrasse 57 (Villa Corona).

Magdeburg (sachsen). Dr. Carl Nissen, Helberstadersstrasse 9/b.

Pforzheim. Dr. Immanuel Kirn, Sedanplatz 6.
Potsdam. Dr. Eugen Kroner, Blucherplatz 2.
Stuttgart. Dr. Richard Haehl, (Hahnemann Coll. Phila.) Helfferichstrasse.
Wiesbaden. Dr. Kranz-Busch, Taunnusstrasse 23 (Haus Prince of Wales).

Holland.

Names given by Dr. Tuinzing.
The Hague. Dr. N. A. J. Voorhoeve, Celebeastraat 93.
Rotterdam. Dr. J. Tuinzing, Haringvliet 26.

Italy.

Names given by Dr. Dandolo Mattoli.
Florence. Dr. Dandolo, Mattoli, Via Montebello 17; Dr. Baldelli, Via Borgognissanti 36.
Naples. Dr. Archimede Ciglinac, Via Carlo Poerio 104.
Rome. Dr. Liberali, Via Montserrato 25; Dr. Agostino Mattoli (N. Y. Hom. Med. Coll.), Via Sistina 60.

Russia.

Names given by Dr. Brasol.
St. Petersburg. Dr. Brasol, Troitzkaia 5; Dr. Fleming, Morskaia 17; Dr. E. Gabrilovitch, Fontanka 38; Dr. N. Garrilovitch, Grafsky pereuolok 7.
Chloral. Dr. Dukoff (translated Hughes).
Moscow. Dr. Serkoff, care of Central Homœo. Pharmacy, 19 Petrofka St.; Dr. Adrianoff—now in London—after Oct. in Moscow. (His wife speaks English, is qualified in Dentistry.)
Odessa. Dr. Lutzenko (translated Farrington).
Riga. Dr. Prof. Zelenkow, St. Petersburg Sanatorium at Riga.

Spain.

Barcelona. Dr. Cahis; Dr. Comet, Claris 45 pral; Dr. Moragas y Garcia. Laurio 4, 1°.

Sweden.

Gotenbourg. Dr. Grouleff, Vasagaten 20 (Hering Med. Coll.).
Ostersund. Dr. Axell, (Hering Med. Coll.).
Stockholm. Dr. Grundall Regeringsgat 52; Dr. P. E. T. Torgny (Rush Med. Coll.). Malskilnadsgatan 41/b; Dr. Osier (Hering?), Valhallavagen 83.
Mjolby. Dr. Harry Holst (Hering?)
Solleftea. Dr. H. Wilh Sjogren (little English).

Switzerland.

Names given by Dr. Mende-Ernst.
Aarau. Dr. P. A. Guignard, Feerstrasse 686.
Basle (Basel). Dr. Edwin Scheidegger, Thiergartenrain 55.
Berne. Dr. A. Pfander, Bundesgasse 32.
Geneva. Dr. Henry Duprat, Boulevard des Philosophes 26.
Lausanne. Dr. Nebel, Boulevard de Grancy 3.
Montreaux. Dr. C. Amiet, Place du Marche 7.
Mulinen (near Spiez). Dr. Luginbuhl.
St. Gallen. Dr. Max Kunzli, Blummenstrasse 38.
Zurich. Dr. Mende-Ernst, Dreikonigsstrasse 37; Dr. Hans Hoppler (N. Y. Med. Coll.), Cecilienstrasse 10; Dr. Aebli, Weinbergstrasse 92.

English Speaking Doctors in Holland (Homœopaths).

Amsterdam. Dr. D. K. Munting, Den Tex straat 8; Dr. M. L. van der Stempel, Pieter de Hoogh straat 2.
Groningen. Dr. L. Bouman, Akerhof 20.
s'Gravenhage (The Hague). Arts A. Boerma, Anna Paulownastraat 75; Dr. N. J. Voorhoeve, Celebesstraat 93.
Haarlem. Arts H. Groenendyk, Wagenweg 16.
Rotterdam., Arts H. Van Royen, Stationsweg 19; Dr. E. C. Tuinzing Haringvliet 26.

Utrecht. Arts J. T. A. B. van Royen c/o Homœopathic Hospital at Oudenryn (new).

Almen. Arts P. L. van der Harst, Director of the future Homœopathic Hospital to be open by the end of 1914.

The holder of the term "Arts" is fully qualified to practise medicine, but has not the rank of "Dr."

MASSACHUSETTS HOMŒOPATHIC MEDICAL SOCIETY.

Report of Committee on Hospitals.

In view of the fact that a comprehensive, statistical report of the hospitals under homœopathic management in this State is presented each year by Dr. Lee, it would seem superfluous for another committee to cover the same ground; consequently no attempt has been made to compile such information.

Our attention naturally centers, then, about the accomplishment of our two largest institutions, the Massachusetts Homœopathic Hospital and the State Hospital at Westboro.

The Boston institution last year admitted over six thousand patients to its various departments, a number that puts the institution among the largest and most flourishing institutions of the kind in the country.

No new construction has been undertaken during the year, but the imperative demand for more adequate accommodations for the vast number of patients seeking admission will force the hospital to expand as soon as sufficient means can be obtained.

The Maternity and Children's Departments are especially crowded at the present time, and the room now occupied by the former is sadly needed for general medical work.

A reorganization of the Executive Medical Board of the Hospital has been effected during the year which will tend to a more compact management in that it centralizes the control to a greater extent than heretofore.

At Westboro, the work of the State Hospital for the Insane has progressed efficiently under the direction of the Superintendent, Dr. H. O. Spaulding, and his able assistants.

A central power plant is under course of erection at the present time, and many of the wards of the old building are being improved and renovated.

A period of economy in State appropriations has made it difficult for the Trustees to carry out many needed improvements but notwithstanding this fact the conditions at Westboro are a credit to the wise and judicious management of Trustees and Superintendent, and your Committee feel that the passage of the bill of The Efficiency Commission, now before the Legislature, would be of doubtful wisdom.

It is gratifying to report that, both at Westboro and at Boston, an effort is being made to institute a Social Welfare Service for the benefit of patients after leaving the hospitals.

The full value of hospitals to the community can only be realized when we extend our humanitarian work beyond the walls of the hospital itself into the homes of the people.

There has been steady growth among the smaller institutions of the State.

A new hospital, the Wing Memorial, of twenty beds, is soon to be opened in Palmer. While this is to be a free hospital, open to all schools, its establishment is largely the result of activity on the part of those vitally interested in Homœopathy.

At Rutland the plan of operation remains unchanged, Homœopathy being represented in that institution by one staff physician.

Committee

Frank W. Patch, M.D.	J. P. Rand, M.D.	J. L. Coffin, M.D.
G. F. Martin, M.D.	H. C. Cheney, M.D.	G. N. Lapham, M.D.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX JULY, 1914 No. 7

ORIGINAL COMMUNICATIONS.

THE DOCTOR AND CITIZENSHIP.*

By Henry A. Whitmarsh, M.D., Providence, R. I.

The role of the true physician is a varied one. His work at the bedside is an essential part, but no means the whole of his life. Indeed, as a superintendent of health, or a member of a board of health, he may leave the practice of medicine to his fellows, and devote his time wholly to public sanitation and the prevention of disease. But no physician can leave preventive medicine wholly to boards of health, nor cease almost daily to apply, either consciously or unconsciously, some principle concerned with the avoidance of disease. He is in fact legally subject to boards of health, and their ally in law-enforcement for the common good. He is not strictly a private citizen, at least in the thought of the layman. His ministry is not confined to the physical man, but must consider constantly the man himself. The priests of the Egyptian temples were the physicians of their time; the same was true among the Brahmins. And to-day, whether we will or no, a double ministry will often be invoked, and the doctor, by virtue of his calling, becomes actively interested, not alone in the health, but also in the lives, of men.

Now good citizenship does not imply that the doctor should be keen for office in civic government. Indeed, his motive for such desire could justly be questioned. But in matters pertaining to public health and the protection of the family life he is looked to by the community as authority and guide. And it will not do to be either indifferent or ill-informed.

The aim of the writer is to invite a more general interest in matters of vital importance now engaging some of our state legislatures; matters which no citizen can safely ignore, and least

* Read before the Massachusetts Surgical and Gynecological Society at Lowell, June 10, 1914.

of all the doctor, because they belong to his daily ministry. And good citizenship, implying both love of country and love of the race, wellnigh compels, not that a few individuals, willing to make the sacrifice, but that the *medical profession as a whole*, shall stand in the front rank for that which makes for the nation's virility and righteousness.

PREVENTIVE MEDICINE.

"Sources and Modes of Infection" by Dr. C. V. Chapin is a book well worth the perusal of laymen as well as physicians. He shows that diseases are not air-borne as we used to think (or very slightly so), but *contact* either direct or indirect is essential to their spread. And medical science has become increasingly concerned with prevention as far better than cure; and far easier, at least in certain diseases. Wonderful results have attended new knowledge. Infections carried by flies and mosquitoes we have controlled and conquered with almost scientific certainty, while those carried by men we have been powerless to prevent,—indeed are only just beginning to combat them as we ought. The race is still saddled with two foul diseases both of which would vanish forever, if only a single generation could be induced to lead chaste lives.

Just a word or two regarding the one commonly thought to be the less serious, and by many as not serious at all, *viz.*, gonorrhœa.—It is the direct cause of more than 25 per cent of all the blindness found in our institutions.

It is responsible for 80 per cent of deaths from operations for diseases of women, and for 70 per cent of all operations for pelvic disease.

It causes more than 40 per cent of childless marriages that are involuntary, *i. e.*, where the parties desire children.

It is the cause of sterility in 42 per cent of men who are incapable of begetting children. (Willson)

It is more frequent than any other disease, excepting perhaps measles.

Its origin was in prostitution and it continues thereby. "Every prostitute, public or private, acquires venereal disease sooner or later, hence all of them are diseased some of the time and some of them all the time. The man who patronizes them risks his health at every exposure." (Belfield) And worse than this, carries home, unwittingly as a rule, to an innocent wife, a vile disease whose end may be her ultimate death. And yet physicians have not to report these cases, though failure to report other than venereal contagions is subject to fine. What glaring inconsistencies the laws of men present!

Prostitution is the oldest profession the world has known.

Regarding it a necessary evil, the state from early time has tried to *make it decent,* and of course has failed. "If necessary it is not evil, and if evil, it is not necessary." Does one imagine for a moment that traffic in human souls can be made decent? And yet the state early made this business a source of revenue. More, it continues to do so. It has been the custom in some of our cities for the proprietors of houses of ill-fame, without arrest, to appear regularly before judges, and pay their usual fine; virtually a tax, for which they get police protection, and freedom for molestation. We call it a protected *business* advisedly, because we have seen that public prostitution is not an institution based chiefly on sex passion, so far as the women are concerned, but another example of *corporate greed,* with large invested capital and enormous profit, often affording rich graft to corrupt officials. To meet demand with a supply of new recruits, new characters have arisen, the "cadet," and "pimp," the Devil's pilots of an underworld to a world still farther under. The "White Slave Trade" has hastened investigation already rich in discovered facts and methods, stimulating public sentiment to try to find some adequate remedy. If the medical profession is responsible for wrong teaching in the past, it may justly claim credit for inaugurating a movement more important to the welfare of the race than any other civic question. As theology has suffered from dogma, so has medicine. But, dogma has sustained a shock. The day is not one of traditions but of ideals. Independent thinking, accurate observation and experiment by many investigators, with conservative tabulation of results have characterized the work notably in the past two decades. A knowledge of things that were not so gives place to knowledge of cold facts as they are. The assumption that sexual indulgence was essential to health determined the attitude of Europe toward prostitution for hundreds of years. It was held to be a necessary institution, even conserving the purity of the family. Women were regarded as inferior to men, who believed in, and taught, a double standard of morality. "Europe has been a man's world." It has recorded the flat failure of every device of government to regulate or control prostitution and venereal disease. (The two belong together since the one invariably and inevitably means the other.) But to-day all over Europe, especially its western portions, one may find "a small but earnest band of men and women bent upon the purification of the sexual life." And the modern sons of Aesculapius must yet "perform prodigies" if they but do their part in this field of preventive medicine. The Church likewise must deal with living questions if she would reach and touch the lives of men. "In England the churches are empty. Clergymen are now regarded by the vast majority as be-

ing merely the relics of an effete Institution. Public Schools and Universities are hot-beds of vice and degeneracy, and there is no doctor in the land brave enough to rise up and call upon Parliament and the people to clean these Augean stables." (Cosmo Hamilton)

This cannot be said of America. For doctors have been brave enough to call to arms, and with them are, not "small bands," but organized societies in many States, numbering our foremost educators, legislators, judges, philanthropists, business men, social workers, both men and women, bent on cleanliness and godliness in place of foul disease and prostitution.

It is without apology, therefore, that I treat of matters worthy the time and thought of such as these. For Massachusetts and Rhode Island, if only in self-defense, will at no distant day be forced to deal practically with these problems. In Seattle, following prosecution for neglect of duty, one thousand men and two thousand women left the city. Iowa legislation unloaded vice en masse to such extent that Nebraska had to pass similar laws which yielded her in turn the same good results. It may not be amiss to learn from the experience of our sister States, and be ready to apply here such remedies as have proved worth while. We ought on vital questions to have pronounced opinions. For social vice is wantonly aggressive, and will yield only to organized forces of righteousness. It is a community responsibility, not an individual one. Unchecked we cannot expect our nation to fare better than Bablyon, Egypt, Greece, and Rome, because precisely the same sources of decay are in evidence. But there is this difference, that, an enlightened medical profession with modern knowledge of cause and prevention, plus an army of devoted men and women with God-implanted love for their race, and wishing to be their brothers' keepers, are preaching and teaching purity of life as not only possible, but also necessary for the nation's perpetuity.

Segregation.

American law, English law, Roman law, Mosaic law. The last says "Thou shalt not commit adultery." What says our statute law? "Thou shalt not commit adultery" in Fifth Ave., but you may in Greene St., if you don't drink too much, and make noise enough to become a nuisance..

Why did segregation fail? Because:———

1. It does not segregate. Always there are many times the number of prostitutes still unregistered.
2. "It is raising a crime to the dignity of a business."
3. It promotes clandestine prostitution.
4. It is confiscatory.

5. It is anti-social.
6. It is unethical, as it teaches a double standard of morals.
7. It is mal-administrative.
8. It is inhuman.

A. It stands as a curiosity to the young, (children point out the neighborhoods), a constant temptation to officials, toward both graft and vice, and becomes increasingly a center for every kind of evil.

"Restraint by license is a surrender to vice under authority of law; restraint by segregation is a compromise with vice illegally made, a nullification of laws by public officials appointed to enforce them. Either license or segregation condemns whole neighborhoods, in which the vicious are but a minority to the common brand of infamy, and fails nevertheless to save other neighborhoods from incursions of vice." (O'Meara.)

"Segregation is showing how to handle a problem by doing nothing with it."

"What possible right has any man or body of men to choose a region in which they do not reside, and doom it to be a neighborhood in which no good or decent man can live and rear his children?" (Bishop Cheney)

Medical Inspection.

is absolutely worthless because:

1. Only experts with expensive apparatus are competent to detect venereal disease.
2. Many cases of gonorrhœa are latent, but still capable of infecting others.
3. The first indulgence after examination may give the disease.
4. Certificates of health, in affording a false sense of security, do more harm than good.
5. Certificates, for graft or other consideration, are frequently supplied in advance to be filled out by the mistress of the house.
6. Inspection reaches only the registered prostitutes, merely a fraction of the whole number.

Legislation.

True it may be that "you cannot make men good by legislation," but society in direct ratio to the degree of its civilization, finds law vital to its life. Recent legislation in some of our Western States is worthy of notice. Business which does not pay, either ceases altogether, or moves elsewhere. "Take away profit" from the business of prostitution "and volume diminishes."

The injunction and Abatement law, passed by Iowa in 1909, and later by eight other States, and still later by others, enjoining not only the business, but also the property, hits both the keeper and the owner. Temporary injunction is followed after trial by permanent injunction. General reputation of the house is competent evidence. Failure to obey injunction is contempt of court. Sheriff sells chattels and closes the house for one year. In some States a tax is assessed, alien against the property. As result of such legislation, Iowa and Nebraska cities report a reduction in the number of prostitutes of seventy-five per cent. A similar law, The Kenyon Injunction Act for D. C., was passed January 1913, by the Senate; by the House in 1914.

Preventive legislation, anticipating the evil, would be far better, and likewise more humane. The great source of supply is "the lower, and mainly the unmarried women of these classes," as found by Flexner in his recent study of prostitution in Europe. Fifty years ago Parent-Duchatelet reported that "Parisian prostitutes are recruited almost exclusively from the artisan families." The same is true here in our country. The entrance of young women into industrial life, with insufficient wage, is responsible for much of the stream that tends so rapidly down.

Now state and civic authority, and law enforcement depend mainly on public sentiment. Hence an enlighted public sentiment must lead.—Mere boys should not be night messengers. Street-walkers should be made unwelcome, and forbidden after reasonable hours. Marriage license should require a clean bill of health. Boards of health should be authorized to require report of venereal disease (by number, not by name.)

Hospitals aided by the state should provide both place and treatment for dependent classes thus infected.

Education.

The wisest legislation, to avail much, must have law-enforcement; which in turn must have the backing of public sentiment. And public sentiment still needs better knowledge of real conditions to say with sufficient emphasis that this evil shall cease. Education therefore will rank first as a preventive remedy. Light up dark places, and evil slinks away. Cast the light of knowledge on ignorance, because knowledge is power for right thinking and right doing. Not mere knowledge, but moral teaching it must be. Where begin? Not with the prostitutes: not with men whose business fattens on their wretched lives and early death; nor the men whose passions have demanded an increasing supply; nor yet with those whose ideas are more or less fixed along these lines. Rather with ourselves perhaps for better instruction of the young,

who are teachable, and who, untaught, will in far greater numbers be the victims and patrons of this wretched business. The present age is an "age of the child." We teach him how to take care of himself, in avoiding all kinds of dangers; what to eat and drink, and a hundred different matters. But of sex, "the most important fact of life," we too often tell him little or nothing.

How, when, where, and by whom, this information may best be given would call forth, at least as to details, varying opinions. But years of labor and study have forced the conclusion that any successful crusade against social vice must give systematic teaching of children in sex matters a large place in its plan. The ideal beginning is in the family, if parents are well enough informed and pure enough to impart such truth. This in our day, if in any day, will not be fully realized. It is the belief of most prominent educators that biology, and the physiology of reproductive life and sex hygiene should be taught in the schools. Naturally, opinions differ as to details in matter and methods; whether, *e. g.*, regular teachers or those specially trained can best do this work.

There are still full many people "too refined to be intelligent," too prudish to be of practical help to their generation. And again there are many worthy and highly intelligent people who still believe innocence and lack of this knowledge to be the best safeguard to virtue. Unfortunately for this partial truth, the question proves to be, with rare exceptions, not one of *knowledge* vs. *ignorance*, but of *right knowledge* vs. *wrong knowledge*.

Leaving details for the moment, there are certain fundamentals about which there should be no question:—

1. The generative system, and the reproductive act, must be rescued from the low plane of shame given it by wrong thinking and wrong doing, because they determine the life of the race.

2. It is imperative that a knowledge of sex matters should come to children first from a pure source.

3. Normal curiosity must be satisfied, though not stimulated.

4. The simple truth, simply told, is far safer than evasion, while deception is an absolute wrong to child nature.

5. This teaching should be *moral* teaching, beginning in the family if possible, and early enough to forestall such knowledge from an impure or even unwise source. "Boys wholesomely taught at home are not corrupted." (Master of Eaton)

Fifteenth International Congress on Sex Hygiene.

Washington, Sept. 23-8/12.

I. Need of special instruction of young.

1. Should not be separated from its natural place in teach-

ing anat. physical hygiene, morals and religion. To single it out for a special course violates the fundamental principles of education and excites morbid interest.

(C. R. Henderson, Prof. University Chicago)

2. Need is four-fold.
   (a) Hygienic.
   (b) Control of venereal diseases.
   (c) To save from mental disturbance and from quackery.
   (d) To change present attitude of avoidance of subject as fit only for lewd conversation to one of serious respect.

(Prof. Peter Frandsen, University Nevada)

II. In Schools.

1. By professional teacher of mature years. (L. G. Colby, Marshall College, Jackson, Miss.)
2. Before ten. Primary teachers not equipped, hence talks to parents. If parents are ignorant, schools must; but by person specially qualified. (Prof. C. H. Lemmore, Adelphi College, Brooklyn)

III. Matter and Methods.

1. Reproduction as a universal living phenomenon should be taught to young children in connection with nature study.
2. Mammalian and human reproduction taught to upper grammar grades. Supplemented by separate talks to boys and girls at adolescent age by specially qualified teachers or lecturers.
3. "Civic Biology" for high school. Control of infectious diseases would pave the way for discussion of the venereal.

Night schools—no sex specialists (Henderson)

4. Merely to instruct teachers is not enough. (David Shaw Jordon)

Committee { Maurice A. Bigelow, Thomas M. Belliet, Prince A. Morrow, M.D.

"I believe I am in hearty support of your main propositions regarding instruction in sex hygiene. I think we have not yet found out just who is the right person to give such instruction. It is not enough to say that it should be given by a doctor of medicine. It must be a person not only of training and knowledge, but of great wisdom and temperamental balance. I am least satisfied with placing the instruction in the hands of repre-

sentatives of physical culture. Biologists, as such, I am doubtful about, though they would *a priori* seem to be the right persons to conduct such work. The trouble with them is lack on the side of human element. The scope of the plan you outline seems from the prospectus to cover very properly the ground that should be covered." (B. I. Wheeler)

American Federation for Sex Hygiene.

Outline:—

1. Maintain central office in New York.
2. Organize state societies.
3. Systematic education of American people.
   a. Shorter work day—no night work for minors.
   b. Minimum wage.
   c. Raising of "age of consent" to 21 years.
   d. Certificate of freedom from transmissible disease.
   e. Clean moral record on part of marrying male.
   f. Prostitution unjustifiable as a physical need.
   g. Insistence by women on single standard.
4. Educational literature.
5. Campaign for public official recognition of and free treatment of social diseases.
6. Sane legislation:—
   a. Listing of venereal disease with reportable contagions (by number).
   b. Empower municipal and other authorities to control venereal disease when manifestly a menace.
   c. Compel hospitals and dispensaries (aided by state) to treat venereal diseases free.

THE DEMAND FOR AND THE ELEMENTS OF RATIONAL PSYCHOTHERAPY.*

By Delmer L. Davis, M.D., Omaha, Neb.

The day of the specialist as such, from the angle of thought, is fortunately rapidly disappearing; but the day of the specialist in action is, also, fortunately becoming accentuated. That is, there is rapidly growing a demand upon the specialist to be informed of general diagnosis and treatment; a demand that he recognize many of the conditions as truly signs or symptoms of a constitutional disturbance in physiologic harmony, or of a secondary or reflex manifestation of some trouble in an organ distantly situated, rather than, as in the past, he has been so prone to regard as a pathological entity. The demand for expanse of the professional

* Read before the Nebraska Homœopathic Medical Society, May, 1914.

acumen or perspicacity is great and imperative, applying equally to the general practician and specialists. However, in point of action, in actual manipulation, in application of mechanics or methods, in developing skill, more and more is the specialist becoming prominent.

In this paper I am hurriedly drawing your attention to a multitude, an unfortunate and very greatly discredited multitude. They total a high per cent of our population. We meet them wearing their symptoms or troubles on their sleeves; we meet them daily on the street, in our office, at public functions and in our homes at social functions. Some of us have them in our own home, and, more than this, some of us have them in our own body. I refer to the class of people burdened with functional neuroses or psychoneuroses which we must recognize, classify, study and treat. This person herein and hereafter to be known as the psychopath or neuropath.

This class of sufferers is discussed before you because I know how large a factor they are in our clientele and because I think I know how little we do for them. The aim of this paper is to help you in their recognition, to plead with you to have compassion on their poor souls and to start you on the right and rational track of curing or greatly benefiting a certain high per cent. of them.

You must learn to be broad in the mental survey of your patient; you must become keen in differentiating functional and organic exhibitions. In a large per cent. of these cases you cannot be or need not be a specialist successfully to treat them; in an equally large per cent of these cases they are almost positively prohibited from being referred to the psychiatrist or specialist in diseases of the nervous system. Inability to persuade them of the benefits of such a change of physicians is a large factor in this prohibition, and the monetary and time expense is not the least of prohibiting factors. So the rational treatment of this large per cent. falls on you.

What is a neuropath or psychopath? We are made of substances or materials and of forces which direct these materials. Some certain, at present unknown, relation existing between this material and these forces constitutes life. The secret of life must lie in this "relation" rather than in either the material or the forces; because we know that both material and forces are indestructible, while their "relation" to each other is easily altered or destroyed. Without question every disease has its incipiency in the forces which are at play from within or without our body upon its material structure. But we have divided these disturbances of action into two classes, according to whether they do or do not produce recognizable structural change. The disharmonic

playing of these forces to a point of producing structural change is classified as organic lesion or organic disease. The disharmonic playing of these inherent forces to produce only a perverted physiological action is classified as functional disease. There can be a functional disease of which the victim has no definite knowledge, but the neuropath or psychopath is the one who persistently complains of symptoms and troubles which have no antecedent lesion, or, are quite preponderant in proportion to any existing organic disease.

While there is no part or organ of our body outside the pale of disturbed functional manifestations, it is true that certain systems are prone to become the target of these perversions.The more intricately the system is associated with or controlled by the vegetative or sympathetic nervous system, the less liable is it to be a feature of psychoneuroses; conversely, those systems which depend for their ultimate accomplishment upon mental impressions followed by volition or the action of the will are most likely to show disturbances.

Time forbids me to enter into a text discussion of the incomplete outline I have placed before you.

In general terms, those systems above referred to as being largely under control of the vegetative nervous system or discharge their functions largely or completely through automatism and, therefore, are the less liable to be the seat of functional neuroses, are Cardiovascular, Respiratory and Functional Cutaneous systems. While these systems are not the most commonly affected, the emotions can eventually influence them. So before leaving this part of the subject as appearing in the outline, I am constrained to refer to two very frequent symptoms. First, is the tumultuous and irregularly intermittent heart. The patient soon learns that this skipping, with its attendant hard bounding or pounding, is most pronounced on lying down or soon after eating, though some notice that it frequently stops while eating, which latter fact is readily explained by diversion of mind. The patients develop this intermittency as soon as they think of it and begin to fear it, and it ceases as soon as their minds are completely diverted to something else. It is never present during sleep and, of itself, never produces nor leads to harmful conditions. The patient says she cannot lie on the left side; she is always making auto-observations of her heart.

Second, is the regular heart pulsations felt in certain or various regions of the body, or, as is frequently said, "I feel myself thump all over." And lastly, I must not omit mentioning the phobic fixation of pain, constant or paroxysmal, over the precordia.

The above symptoms, frequently started or intensified by a careless, indiscriminate or ignorant physician telling them that "they will never stand an operation," "they have heart disease and cannot live through an anæsthetic" and such other welcome, comforting and supporting advice, clearly show us why about 95 per cent of the women who do submit to an anæsthetic always consider it with emotional fear because they know they have "heart disease." There is justification for fear by intelligent reasoning, but few of them have this type of fear.

Those systems most frequently the seat of functional neuroses are the Digestive, Urinary, Genital, Muscular, and disturbances of sensibility.

You are all quite familiar with the Gastropath and the intestinal Neuropath. They constitute the great army of dietetic faddists who have brought little or no comfort to themselves and are enveloping their progeny in a sombre haze of food phobia. They have put Battle Creek on the map of the world, the place where their real therapy is either surgery or suggestion.

Constipation is the national disease of the American people. Except in a very small per cent of individuals we are not curing constipation with drugs. We are not curing constipation with olive oil, liquid paraffin, electricity, dietetic measures, physical culture, gymnastics nor surgery. Not openly here, necessarily, but privately think back over your years of practice, and what has been your general conclusion about your success in treatment of constipation?

Most of us have met the woman who, through any light sudden shock as fear, joy, anger, seeing an accident or upon the ringing of a telephone, must rush to the toilet for a diarrheic evacuation.

The surgical harvest of fixing "floating" kidneys has been marketed some years ago, except for a small voluntary or sporadic crop which develops here and there in some isolated spot quite remote from surgical civilization. Frequent urination of reasonable quantities (3-6 ozs.) not high in urochromes and not attended with vesicle tenesmus is almost sure to be neuropathic in origin.

Impotency and prostatarrhea are largely sexual phobias fast upon the mind of the over zealous, though ever fearing, young and middle aged men, who, in the search for their sexual "Holy Grail," are so eager to lavish their last cent, and who contribute so largely to the "success' of the unscrupulous practitioner.

Neuropathic genital manifestations of women are next to, if really not ahead of, drunkenness as a last analysis cause of divorce and give rise to all sorts of domestic troubles involving the marital life. Vaginismus is almost always a fear, while frigidity is almost

always a potential negative education. Religious ideas, fear of pregnancy, an altruistic anxiety of sexual duty to her companion may inhibit the voluptuous sensation of the marital embrace, but much more likely is frigidity due to inherent suppression of normal emotions. No one cause furnishes the starting point for neurasthenia as frequently as does that of sexual emotionalism.

Doubtless this paper should have been limited to a discussion of the false gynecological manifestations, but I have aimed to make my paper educational from a practical angle and did not feel that we were just ready to delve into the intricacies necessarily accompanying the full discussion of the analytical, synthetic and therapeutic phases of any special system. In this category of false gynecological symptoms the blame for these neuropathic manifestations lies shamefully across the threshold of the medical profession. They are initiated by suggestion of a professional origin and accentuated by treatments of weeks', months' or many times, years' duration. These treatments many times lead to pelvic phobias, of which that most often met is the cancer phobia.

The neuro-muscular manifestations are many. Those mentioned in the outline are most common. This system furnishes a great number of neurasthenic symptoms, fatigue and susceptibility to exhaustion being so frequently met. The patient complains of always being completely tired out; she has "sinking spells" just as though she were going into a faint or were going under the influence of an anæsthetic.

Disturbances of equilibrium vary from slight and very transitory dizziness to complete motor incoördination, preventing her from even an effort to stand. In this state of progress she is distinctly a bed patient.

Tremors, choreas and choreatoid movements are fairly frequent and quite easily recognized. One of my present patients came to me insisting she had "palsy," meaning paralysis agitans. I had some difficulty in convincing her that her head movements were "jerks," instead of the "shaking" motion of paralysis agitans, and these "jerks" were noticeable in other parts of her body.

I have been fortunate in having seen very few hysteric or functional contractures, but most of us have had an experience with them. The paralyses of this type are rarely gradual,—like the apoplectic paralysis, they are sudden in onset, but unlike the apoplectic in that the neurasthenic or hysteric paralyses always follow accidental traumatism or are post operative. The true apoplectic paralysis almost always comes without warning or external cause.

The different asthesias are symptoms of hysteria and especially major hysteria.

The true psychoneuroses furnish the group of symptoms most uniformly and persistently present in the psychopath and, therefore, the most difficult to free the patient from. Many times the complainer will lose any of the above enumerated symptoms in one or two treatments, but this is not so true with the true psychoneuroses. Sleeplessness, inability to get sleep, lying awake for hours without any known reason, trying and trying to get asleep and the more she tries the wider awake she becomes, "very sleepy but can't get asleep," are the expressions of this sufferer.

The disturbances of speech vary from word block, hesitation, stoppage of speech and stammering to absolute mutism—mutism lasting from a day to months or even years.

The headache is regularly the occipito-cervical type; the sensation of a band about the head is not as common as the occipito-cervical location. This headache is either constantly present or comes on some time during the day. In not a few cases I have met it coming on for days previous to menstruation, lasting until about an equal duration following cessation of the period. These cases can best be regarded as having a few days respite from what would otherwise be a daily headache rather than regarding the headache of direct pelvic origin. Nor are these headaches to be confused with the poor unfortunate victim of migrain, having an attack once or twice a week.

Altered reflexes are more apt to be met in hysteria while acquired psychological disturbances in the form of obsessions belong more frequently to neurasthenia than to psychasthenia.

It has seemed best to make some attempt at analysis and delineation of the various single manifestations in functional neuroses even though it had to be done briefly. It helps greatly to set us right on recognizing many symptoms as properly falling in the category of disturbed central creations and emanations which show themselves as distal manifestations.

The genesis or synthetic factors contributing to the production of these symptoms are intentionally passed over.

That part of the treatment of these cases which lies within your own sphere of administration is most interesting. These ailments, or some of their isolated symptoms, are alone the foundation for the formation of all irregular cults, creeds and isms; all with followings of greater or less proportions and chasing a "will-o-the-wisp." They have all given some degree of beneficial results, but their delusional basis has caused each of them to wash their hands in the blood of an appalling number of deaths. I would not be so narrow as to disclaim any element of virtue in these varied and numerous digressions but I do affirm that these

few virtues lie in their occasional results, rather than any rationalism which might form the basis of their cult.

If blame can be said to be the word, let me state that the blame for the existence of the so called "Christian Science" church lies in their unknowingly applying practical clinical principles, fully recognized by the medical profession for generations, but which this same medical profession has steadfastly refused to accept, use and apply. If blame exists for the establishment and present strength of the Christian Science church, it is upon the shoulders of the medical profession. This faith was conceived, founded and established, like the numerous other cults of so much lesser import, to supply a want, a want which the medical profession would not recognize as generally existing, and a want which, when detected in occasional cases, was ridiculed and scoffed. You will notice I say this "faith" was conceived;—faith is the one and only word to use to express the solution of their results. The Christian Science church stands as a gigantic monument to human neglect by the medical profession and dedicated silently to the psychically impaired. This faith and all other similar ones have assumed an irrational and delusional basis on which they rest the explanation of their results. On account of this delusional basis, it is ultimately to be relegated to the history of rapidly fading fancies of impulsive and vacillating humanity. But whatever may have been or is the present attitude of our profession toward this creed, which strictly is neither science nor religion, it is now serving as an evolutionary step in developing and forcing upon our profession the rational psychotherapy within our knowledge and application. As the bud of today loses its identity in developing into the rose of tomorrow, so the Christian Science church of this generation must lose its individualism as such in contributing to or developing into the broader humanitarianism of the next generation.

But what about the positive and progressive action expected from us?

Practically all neuropaths and psychopaths come first under the observation of the general practician. It is only after they run the gamut of the profession without any improvement, to which disappointments is more often added open indifference, neglect, ridicule and rebuke, that they dubiously enter the realms of faith because of personal distractions on one hand and importunings of the faithful on the other hand.

I have said a certain high per cent of these cases you can treat successfully. But you cannot do it with drugs. Those of us who like to believe in the law of similars must recognize and accept the exhibition of this same law outside our own domain of

drug therapy. We must come to the belief that psychopathic conditions are amenable only to psychotherapic measures. The more I study these people and find how easy many of them are cured by even my very crude methods of psychotherapy, and the more I hear of this long history of failures on drug treatment, the more I am convinced that drugs play little or no part in their real successsful treatment, excepting, of course, some occasional conditions preëminently calling for immediate drug action. I wish it were your disposition to listen and my time to review the experience I have had with some preparation reputed as specific in neurasthenic and hysteric conditions. While I do not yet have the courage of my own convictions to do away with drugs entirely, I regard their use in my hands as supportive treatment and to supplement my personal deficiencies in a complete system of psychotherapy.

The first step in the treatment of these cases is personal equipment; this means to attain efficiency in physical diagnosis—in ability to detect organic lesions; then make considerable study of the psychoneuroses and their treatment as set forth in any one of several good standard text books.* Having satisfied yourself of your proficiency sufficient to begin the use of this treatment, the next step is to give yourself and your patient ample time.

I cannot here enter into the demerits of all methods of suggestion. Suffice it to say they all have their avenue of effect through the cerebral automatism or the subconscious mind; they disregard the conscious mind and the re-education of the patient to self-confidence. All methods of suggestion, using either a material or psychic agent, favor relapse. Persuasive reasoning is the only method which re-educates and favors the development of personality.

Time in taking a thorough history omitting no detail in the patient's life, and encouraging her to regard no impressionable incident in her life as too trivial for her to recite to you, is absolutely necessary. I realize that in smaller communities this is much more difficult than where people come to you as strangers, but, as we will later see, on this one point of reconciling herself to making a confident of you hinges the patient's salvation or cure. She must open up her heart to you. After all necessary time has been spent for a most complete anamnesis, if you have not the time then to do so, make another appointment for a thorough physical examination. For two reasons this must be thorough; primarily to detect any organic condition which might give rise

* "Psychoneuroses and Their Treatment by Psychotherapy," Dejerine and Gauckler; Jelliffe's translation. (Lippincott Co.)

Dercum's "Mental Diseases" and Brill's "Psychanalysis". (W. B. Saunders Co.)

"Pain" by Behan. (D. Appleton & Co.)

to any of her symptoms, and secondly to impress her with your thoroughness and ability to make such discovery in case any lesion does exist, thus instilling in her a much greater degree of confidence in you than that which she had immediately after taking her history.

You are now, and not until now, in a position to begin to talk to your patient. You are now beginning your treatment, and your success depends upon how you talk. You have asked and expected her to be frank with you in every respect concerning her history; so now it is equally your debt to her to be frank in every respect about what you do and do not find after making the physical examination. If you find a lesion, do not hesitate to tell her so and give it proper drug or surgical therapy; but do not become fixed in your own mind that a symptom of which she complains points to a physical sign which you must find. Too many diagnoses have been made, and symptoms treated with drugs internally or locally merely from the deluded belief—on the part of the doctor—that he must materially treat the patient for everything of which she complains. Many phobias have been established just because of such treatment.

You will be surprised to find how many cases of pain, heart disease, pelvic distress, etc., you have cured from your complete examination and positive statement that no organic pathology exists to substantiate such symptoms. From now on your success lies in the way you reason and persuade your patient; which can be done in such a way that you unfold her own mentality and reasoning, that you re-establish intellectual self-control and liberate her from any physical or psychic disordered actions.

FUNCTIONAL NEUROSES.

Manifestations.

- Digestive system.
  - Appetite.
  - Mastication, Deglutition.
  - Gastric symptoms.
  - Intestinal neuropaths.
  - Defecation—Constipation and diarrhœa.
- Urinary.
  - Floating kidney—oliguria—polyuria.
  - Frequent micturition.
- Genital manifestations.
  - Men—Prostatorrhea—Impotency.
  - Women—True localizations.
    - Female frigidity—Sexual neurasthenia.
  - False gynecological symptoms.
- Respiratory.

Cardiovascular
- Tumultuous heart.
- Body pulsations.

Cutaneous Functional Symptoms.

Disturbances of sensibility.
- Anæsthesias—paræsthesias.
- Hyperæsthesias.

Neuro-muscular.
- Fatigue—Exhaustion.
- Disturbances of Equilibrium.
- Choreas—Tremors.
- Contractures and Paralysis.

True Psychoneuroses.
- Disturbance of sleep.
- Disturbance of speech.
- Altered Reflexes.
- Acquired psychological disturbances.
- Phobic manifestations.

Genesis of Psychoneuroses.

Treatment of Psychoneuroses.
- Thorough history.
- Complete Examination.
- Frankly explaining any organic lesion and properly treating as such.
- Frankly explaining no organic lesion to account for symptom.
- Re-education to normal functions.

THE TREATMENT OF FIBROID TUMORS, WITH A REPORT OF ONE HUNDRED OPERATIONS.*

By George R. Southwick, M.D., M.R.C.S. Eng., F.A.C.S., Boston.
Professor of Gynecology, Boston University.

Palpable uterine fibroids are found in one out of every twenty of the women applying for treatment in my Thursday clinic. This is a lower percentage than many writers give. A recent compiler states that from 7 to 22 per cent of all adult women over thirty-five years of age have uterine fibroids. (E. B. Young) Autopsy records show fibroid nodules in one case out of seven of all adult females. It is obvious that the majority of these nodules never become palpable tumors and never produce symptoms.

PALPABLE FIBROIDS.

Palpable fibroids may be divided for purposes of treatment into four groups. The small fibroids which produce no symp-

* Read at the meeting of the Massachusetts Surgical and Gynecological Society, June, 1914.

toms and grow very slowly. A distinction must be made here between single and multiple small tumors. The former is rare and the latter is the rule. The slow growth of several small tumors may in the aggregate lead to comparative rapid enlargement of the uterus and produce symptoms. The location of a small fibroid more often determines its serious character than its size.

Persistent, severe uterine hemorrhage, seriously endangering a patient's life, was found after a hysterectomy to depend on a fibriod, scarcely the size of a marble, embedded in the uterus near the interna os, but I could not feel it with the patient under ether. Small fibroids in the cervix and small sub-mucous fibroids are notoriously dangerous. Fortunately small fibriods are most often sub-peritoneal and attached to the corpus uteri. These represent a large number of cases, which rarely produce symptoms, often do not come to the physician, and for practical purposes need not be considered at this time.

FIBROIDS OF THE CERVIX may not produce symptoms, but are dangerous complications of pregnancy. Within the past year I have seen two cases, in young women 19 and 20 years of age, which produced no symptoms until there was an abrupt inability to urinate on account of pressure on the bladder and urethra. Hysterectomy was the only remedy. Malignant degeneration is more common with fibroids in this location than at the fundus uteri. Statistics show that 70 to 90 per cent of fibroids arise from the corpus uteri, as compared with the cervix.

LARGE FIBROIDS constitute another clinical group. These usually produce symptoms. Most tumors of this group are sub-peritoneal and of long duration. Degenerative changes in the tumor may be deferred for years, or impairment of health be slow. It is this class of tumors, together with the smaller ones already mentioned, which have led many physicians to think that fibroid tumors seldom, if ever cause death. The facts are,—that complications or degenerations dangerous to life occur in at least 10 per cent of these tumors.

SUB-MUCOUS FIBROIDS, including fibroid polypi, occur much less frequently than sub-peritoneal fibroids. This class is the most dangerous to life and health. Necrosis occurs in forty-three per cent. The presence of such a tumor predisposes the endometrium to cancer, to say nothing of severe and persistent bleeding, infection of the endometrium and secondary inflammation of the tubes and ovaries.

THE RELATION OF FIBROID TUMORS TO STERILITY, FERTILITY AND PREGNANCY depends largely on the situation of the growth.

A sub-mucous fibroid often prevents pregnancy or terminates it at an early stage, on account of profuse and persistent bleeding. If abortion takes place at the fourth month and the placenta is retained above, or partly behind the fibroid, hysterectomy is necessary, as it may not be possible to remove the placenta in any other way. The fertility of women with fibroid tumors is lowered. Pregnancy increases the rapidity of tumor growth, and the tumor diminishes to some extent with the post partum invilution of the uterus. The placenta is more often adherent or retained than normally.

In a series of 147 cases of fibroid complicating labor, manual extraction of the placenta was necessary in 21. Thirteen of these women died.

PREGNANCY COMPLICATED BY FIBROIDS is a serious affair, though many patients get along safely if the tumors are subperitoneal and attached to the fundus. Statistics of 447 cases show a maternal mortality exceeding 40 per cent and an infant mortality of 66 per cent. It is safe to estimate that modern technic has reduced the maternal mortality to at least 33 per cent, and Cæsarian section will rescue many a child which would be destroyed by the high forceps operation. A practical interpretation of these cases is, that whenever possible a woman suffering from a fibroid complicating pregnancy, should be delivered in a hospital.

The effect of the menopause in many cases is to check the growth of the tumor; occasionally the tumor diminishes in size; sometimes it grows. I have not seen a fibroid which began its first growth after the climacteric. Most of these growths are found between thirty-five and forty-five years of age. They are rare before twenty.

Two of my cases illustrate the post-climacteric history of some cases.

Mrs. A. age 66, had been treated by various physicians a few years previously for occasional slight flowing. She was seen by me in consultation and a fibroid polypus broken down by cancer was found. This patient recalled that the doctor who attended her in her last confinement, more than twenty years previously had told her that she had a very large, hard uterus. The polypus I found was the fibroid of that period which had gradually become extruded. It is of interest to note that she had considered herself well till within a few weeks.

Mrs. B. has been under my personal observation for twenty-eight years and is now 73 years old. Thirty years ago she had a large fibroid extending above the umbilicus, and she flowed excessively. Operations at that time for such cases were hazardous

and she was treated mainly by vaginal packing and ergot, to hold the flow in check. Iodide of lime and other remedies were used. She finally passed the climacteric and the tumor diminished less than half its former size. She has considered herself a well woman, as far as the tumor was concerned, for nearly twenty-five years. I have examined her from time to time during this period without finding anything more than the tumor which very slowly became a little smaller. I believed this case a good illustration of the results of conservative treatment and considered her fibroid cured. That tumor, or one of its nodules, has been extruded into the uterine cavity, and both the tumor and the uterus have become recently the seat of adeno-carcinoma. These cases at one time in their clinical history might have been quoted as cures, with apparent reason. These and similar cases lead to the writing of articles and create opinions of treatment which are not justified by terminal facts.

The menopause ushers in the period of malignant degeneration. It does not cure the fibroid. Statistics show that 10 per cent of the women operated on for uterine fibroids between 50 and 60 years old, have cancer of the corporeal endometrium. Samuels found that 60 per cent of the degenerations of fibroid occurred at, or after 40 years of age.

Large fibroids are often associated with visceral and cardiac degenerations, about 11 per cent of which are dangerous to life.

The study of operated cases in several large series has developed important facts.

Crossen tabulated nine series of consecutive operations, amounting to 1815 cases, with a view of ascertaining the probable fatalities from tumor degenerations and local complications. There were 345 such cases, or 19 per cent, which did not include remote effects of hemorrhage or degeneration of the heart or viscera. 951 cases of fibroid tumor showed 38 per cent with disturbance of the heart.

Winter reported 753 operated cases, with malignant disease present in 39, and total necrosis in 17 cases, both of which, or about 8 per cent, would have led to a fatal termination.

Noble found 4 per cent of carcinoma in his own 337 consecutive cases. Winter found 4.3 per cent of sarcomas in 253 cases, systematically sectioned and examined microscopically. It is probable, therefore, that all tumors operated on late and carefully microscoped would show 8 per cent malignancy.

Four years ago I removed a large rapidly growing tumor which appeared to be an ordinary multiple fibroid, but a year later I had to remove a spindle cell sarcoma, the size of a billiard ball, from the abdominal wall. It throws suspicion on the first

diagnosis. There has been no recurrence of the sarcoma, possibly due to vigorous use of the X-ray after the operation.

The long history of fibroid tumors of the uterus, not infrequently extending over twenty years, the slow development of degenerative changes, and the fact that rarely can any one physician study a case to its actual termination, have led to false conclusions, incorrect observations, reported cures on insufficient evidence, and recommendations for treatment which are not justified by our more complete knowledge of these growths.

The subject of treatment resolves itself into Palliative and Radical or Surgical measures.

PALLIATIVE TREATMENT. Hemorrhage is the one symptom which may call for palliative treatment when surgical aid must be deferred. Absolute rest in bed, the thorough use of the vaginal tampon, some form of ergot, adrenaline hypodermically, and a few other remedies, have served a good purpose. Thyroid tablets and various preparations of lime, and some other remedies have been helpful in a limited number of cases. Electricity and the X-ray have done little more. We may resort to them by force of circumstances, but not as a matter of choice. The real remedy for a fibro-myoma of the uterus is the same as for the ovarian cyst.

It may well be asked, what right have we to recommend any other treatment when the natural mortality from untreated tumor is double the mortality from operations, in properly selected cases

Properly selected cases! Aye! "There's the rub!" Shall every fibroid be submitted to the surgeon? There are good surgeons who are convinced that the only safe fibroid is the one removed, in spite of the fact, beyond dispute, that large numbers of women die from other causes and have had small symptomless fibroids for years.

Many a physician has seen cancer develop in just such small symptomless tumors.

How about the patient who has a fibroid the size of an egg, who has occasional menorrhagia and who must spend a few days in bed each month? How many of these cases are treated expectantly and assured they are getting on pretty well. Yes! pretty well in development of conditions requiring operation later, at a greatly increased risk.

How about the fibroid tumor after a stormy climacteric has been passed? Remember the 10 per cent of cancer occur in fibroid tumors removed from women between 50 and 60 years of age.

Modern surgical technic shows a mortality of 3 to 4 per cent, but the average for a series of a large number of cases is not the

rule to follow for every case, except so far as it may serve as a guide in considering non-operative treatment. Each patient should have the particular type of surgical aid adapted to her case and needs.

MYOMECTOMY, HYSTERECTOMY. Surgical treatment resolves itself into two chief operations, myomectomy and partial or complete hysterectomy.

Myomectomy, or the enucleation of the fibroid from the uterus, aims at preserving the child-bearing function. The mortality of this operation is higher and the convalescence often more stormy than after hysterectomy. The preservation of child-bearing is more fancied than real, as less than 10 per cent bear children after myomectomy.

One serious drawback to myomectomy is the possibility of overlooking small nodules, which grow afterwards. Recent German statistics show 7 per cent recurrence.

Myomectomy is curative of symptoms in 73 per cent. Hysterectomy in 97 per cent. Myomectomy, therefore, occupies a limited field. Hysterectomy may be complete or partial: vaginal or abdominal. My own preference is for the abdominal operation with preservation if practicable of a little endometrium in menstruating women. In other cases I prefer to core out the cervical canal when the corpus uteri is removed. It removes all the epithelial tract and thus prevents the subsequent development of cancer. It leaves an intact vaginal fornix of natural size with its nerve supply and fascial attachments.

TRANSPLANTATION OF OVARIES. In many cases I transplant the ovaries into the abdominal wall to preserve their secretion. It can be done often when it is not wise to allow the ovaries to remain in the peritoneal cavity. The effect of ovarian transplantation appears to be the same as when the ovaries are left after hysterectomy. It is probable that in either case the ovaries slowly atrophy.

Climacteris disturbances and nervous disorders are comparatively infrequent when the internal secretion of the ovary is preserved.

My last one hundred operations for uterine fibroids, shows ninety-seven good recoveries, not merely from operation, but excellent restoration to health, considering age or complications of other diseases. Only three of these one hundred cases have died. One died from pulmonary embolism on the twelfth day of an apparent ideal convalescence. Another died from double pneumonia due to severe exposure eighteen hours previous to

operation, but not known to me at the time. Death in the third case was attributed to endocarditis, but sepsis is the more likely explanation.

Uterine hemorrhage was the most frequent single symptom and was present in 25 per cent of the cases. Cancer of the left ovary complicated one case, and cancer involving the fibroid was found in three cases. Sarcoma followed hysterectomy in one case, but there was no proof microscopically of its presence in the uterine tumor.

Complete removal of the entire uterus, tubes and ovaries was necessary in twenty-seven cases, and supra-vaginal hysterectomy in sixty-one cases. Myomectomy was performed in twelve cases, all of which recovered.

I know of no pregnancy following these myomectomies, but I had a patient who submitted to myomectomy in the fourth month of her first pregnancy. She went to full term after it and has since had two full term pregnancies.

One fact stands out very prominently in present day sugical treatment, *i. e.*, that loss of life is less than the frequency of malignant disease in operated cases.

The addition of other probable fatalities in a list of 1815 operated cases amounted to 15 per cent additional risk. (Crossen)

Malignant degeneration of a fibroid, before operation, except in an advanced stage, is very difficult to diagnose, and it often escapes ordinary inspection after a tumor is removed.

A BRIEF RESUME OF FACTS.

1st. Uterine fibroids are a common and serious disease of the uterus.

2nd. Fibroids in the uterine cavity and cervix are the most dangerous to life.

3rd. Large fibroids almost invariably, in time, cause cardiac or visceral degeneration, with 11 per cent mortality.

4th. Fibroids rarely, if ever, disappear with the passing of the climacteric. Ten per cent of these cases have cancer between the ages of 50 and 60 years.

5th. Large series of cases operated show that one woman in five was likely to die without operation.

6th. Malignant degeneration plays a very important part, about 8 per cent, in the terminal history of uterine fibroids removed by operation.

7th. Eight per cent of malignancy in operated cases greatly exceeds the per cent of malignancy for all cases; but, unfortunately, malignant degeneration at an early stage seldom can be diagnosed without operation.

CONCLUSIONS. The lesson of these cases seems to be that fibroid tumors are a common and a serious menace to the life and health of women. It may not be necessary to operate on small tumors of the fundus uteri, stationary in growth and producing no symptoms. These tumors, however, should be objects of suspicion and examination at fixed periods of time.

The palliative treatment of all other classes of fibroids is uncertain, and delay in surgical interference is too often at the expense of life.

Surgical handicraft, with 3 per cent mortality, has accomplished about all that can be expected of it so far as mechanics of the operation are concerned.

Ether, asepsis and the catgut ligature have placed the mortality of operations for fibroid tumors on a basis which bears favorable comparison with that of tonsilitis or influenza.

There remains a fertile field for further effort in the prevention of post operative complications and pain. Ether is the panacea for the operation itself, but many a woman wonders how she lived through the torture of the first three days after the operation.

Much of this pain is due to diminished peristaltic action of the bowels and accumulation of flatus. Some pain is due to traumatism and not a little pain results from the posture of the patient during a prolonged operation. There is undoubtedly a great deal of unnecessary post-operative pain from mass ligatures, unnecessary sutures, handling of intestines, mauling of tissues and prolonged operating which can be avoided to a large extent by experience and "team work."

Modern methods of local anæsthesia; nerve blocking; stimulation of intestinal peristalsis and some use or modification of the method of treatment employed in the conduct of so-called painless childbirth, will save pain, preserve strength and save the patient from much of the memory of those terrible three days, when even death itself seemed a welcome relief from suffering.

SOME SUGGESTIONS IN THE TREATMENT OF LOCOMOTOR ATAXIA.*

By WILLIAM HARVEY KING, M.D., New York City.

Locomotor ataxia was one of the first diseases treated by the electro-therapeutist. Long before Galvani's and Volta's discovery of dynamic electricity, the static spark was employed for the alleviation of the pains so burdensome in this disease. There was, however, no systematic plan of treatment laid out until Ramak

*Read before the Homœopathic Medical Society of the State of New York, April 15th, 1914.

published his classical work on Electro-Physiology. His method of treatment was to pass an ascending galvanic current up the spine. This was based on the theory that impulses through the affected area of the spine travelled upward and, as the current passed from the positive to the negative pole, it helped to overcome the resistance caused by the sclerosis. This treatment was supplemented by passing a current along the sensory nerves, the negative pole being placed on the spine and the positive over the points where the stabbing pains, so pathognomonic of the earlier stages of the disease, were most manifest. This supplementary treatment was based on the supposition that the sensory nerve current ran upward, and that the electric current stimulated it, and also, that the anelectrotonic effect of the anode relieved the pains.

There was from the beginning a difference of opinion regarding the efficacy of this treatment, but the weight of evidence was decidedly in favor of it, and for fifty years it was the most relied upon of all the treatments extant for locomotor ataxia.

Duchenne's method of giving a heavy faradic current over the feet, legs, hands and arms was largely used in France but never became popular in any other country. Duchenne's treatment was based on the theory that the faradic current, by its interrupted and alternating character, sent thousands of impressions through the sensory nerves, reflectively affecting the posterior columns, and thereby overcame the resistance of the sclerosed area.

In the early eighties the static machine, which was first employed in electro-therapeutics but which had not been popular for many years, again came extensively into use. The method of treating locomotor ataxia with this form of electrical manifestation was to give heavy sparks from the ball electrode over the affected region; that is, the limbs and back, but more especially over the bottoms of the feet. This treatment was based on the theory that heavy shocks given to the sensory nerves bombarded the obstructed sections along the spine, and thereby overcame the resistance, causing a freer conduction from periphery to centre. This modality had many followers, and I can testify to its usefulness in giving temporary relief. I believe, however, from an electro-therapeutical standpoint, a new agent, superior to all its predecessors, has come into the field for the treatment of this very intractable disease.

Of late I have adopted a method of treating locomotor ataxia with high frequency currents, which in results far surpass any other form of electrical treatment I have ever employed. As there seems to be so much misunderstanding regarding high fre-

quency currents, and there is such a difference in the high frequency currents given off from the various forms of apparatus on the market, it is necessary for one to describe the character of the currents he uses, if his experience is to be of any comparative value. High frequency current given off from a solonoid, when a static machine is the initial charging force, differs quite materially in its physiological action from those when a Ruhmkorff coil is used. So. in turn, high frequency currents generated by means of an alternating current through a step-up transformer, differ from those of the Ruhmkorff coil.

The high frequency currents I employ are of the latter type. The alternating current from a motor generator, after being stepped up, is passed through a solonoid tuned to condensers of one quart size Leyden jars, one half the surfaces of which are coated. This gives an alternation into the millions per second. The charges and discharges of the condensers are so rapid that the interval between the decreasing vibration of one and the increasing vibration of the succeeding one is very short. We here have a current capable of vibrating the spinal cord and its nerve terminals continuously millions of times a second.

My method if application is to place the patient on a condenser chair. No part of this condenser chair is in the circuit except the seat. The insulating material, between the metal attachment of the electrode and the patient, should be very thin and its insulating power great, so as to give a high tension induction without leakage. It is the rapid rate of vibration and the high tension induction, which appears to me the most important part in this treatment. The other pole is connected with a tin foil electrode placed around the neck. This tin foil electrode should be thoroughly soaped and placed in close contact with the skin, so that a current of twelve to fifteen hundred m.a. may be given for thirty minutes without inconvenience. The treatment is given three times a week, in periods of thirty minutes each. Under this treatment the stabbing pains will disappear within a few weeks; the patient will feel stronger, walk better, and there will be a symptomatic improvement all along the line.

That there is such a thing as a permanent cure of locomotor ataxia I do not believe. The best we may hope for is relief of the stabbing pains, and overcoming the ataxia so far as to keep the patient on his feet. In other words, give him comfort and keep him going. This I believe the above described treatment will do better than any other known to me.

This paper would be incomplete without mentioning my experience with two remedies in this disease. One is chromium sulph., which has been used of late extensively for locomotor ataxia, and

the second a combination of thyroid and thymus gland extract. Of the first, the crude material has such a very constipating effect upon the bowels, I feel it should seldom be given, except in some form of combination which nullifies its action in this respect. That it has a beneficial influence in early cases of locomotor ataxia, I feel confident, but I do not believe its administration should be continued for long periods without intermission. The thyroid and thymus gland extract is largely an iodide, and the special preparation I have used has given far better results on the syphilitic condition than any of the iodides. I believe we have, in properly prepared thyroid and thymus gland extracts, a superior remedy for old and localized conditions to any other preparation of iodide known today. In addition to its action as an iodide, it tones up the patient, increases oxidation, inhibition and absorption, gives greater vigor, mentally and physically, and, consequently, develops a resistant power.

It has been my custom in locomotor ataxia to alternate the thyroid every two weeks with the chromium sulph., beginning with a small dose and gradually increasing to the maximum. The combined methods which I have described here, that is, the high frequency currents combined with the alternation of these two remedies, have given most remarkable results.

SOME PRACTICAL POINTS IN THE TECHNIC OF CÆSARIAN SECTION.*

By Thomas E. Chandler, M.D., Boston.

During the last several years the operation of Cæsarian section has come more and more to the front as a means of terminating various obstetrical complications. The field for it has broadened so much and the indications for its performance have multiplied so, it seems to the writer that a wider knowledge of the technic is very desirable.

The writer is not an obstetrician in any construction of the term, but it has fallen to him to perform thirty-three of these operations in the last two years, and it is with the benefit derived from these operations that he now wishes to endow you all.

This is intended to embrace a few words on the technic and not on indications for the operation, yet I cannot refrain from quoting to you from the words of Dr. Jellett, Master of the Rotunda Hospital in Dublin, to the effect that the operation of high forceps is never indicated; that some form of section should take its place.

---

* Read before the Massachusetts Surgical and Gynecological Society at Lowell, June 10, 1914.

A question that is often asked is one bearing on the best time during labor for the performance of this operation. I think the best time is a few hours after pains begin, provided the operation is made for obstruction. If it is made for any of the toxæmias of pregnancy, the earlier it is made the better. If made for placenta prævia, it would preferably be performed some days before term. It is desirable always to have some dilatation of the cervix, but this part of the uterus softens up soon after delivery, and provides good drainage even it be contracted at the time of the operation.

Having digressed to this extent, we will presuppose that the matter of indications and contra-indications has been thrashed out and that Cæsarian section has been decided upon as desirable. This brings us to the preparation of the patient, assuming that, of course, the surgeon knows how to make himself aseptic.

The preparation of the patient is made in two steps, first the cleansing of the vagina and then the abdomen. If recent examinations by the vagina have been made, and it is a fact that they will have been made in a great majority of cases, it should be cleansed by means of a thorough scrubbing with plain kitchen soap and sterile water, then thoroughly rinsed with alcohol, allowing the alcohol to remain in the vagina, which will give good practical results, even though the vagina may not be absolutely sterile.

During the process of cleansing, the urine should be drawn. This should be done, when because of the time, we are forced to ignore the vaginal cleansing.

The abdomen can be safely prepared by the iodine method.

The next step in the operation is the incision, which is made in the median line of the abdomen; starting just below the umbilicus, it is carried down to a point two inches above the pubes. The incision is then carried upward around the left side of the umbilicus as far as is deemed necessary.

The choice of incision is still a debatable one, and I may state in a few words my reason for preferring the one below to one above the umbilicus. The particular reason is that the resultant wound is stronger during the period of convalescence. That fact is explained by the preponderance of the longitudinal over the transverse fibres in the sheath of the rectus. This does not hold true about the umbilicus or above it. The fibres converge at the umbilicus and the transverse fibres predominate in the sheath above the umbilicus.

Many writers tell of the difficulty from atony of the bowel following Cæsarian section, resulting in great distention. If this is true, the abdominal wall cannot be too strong while that particular difficulty exists.

Dr. Davis of New York advises incision above the umbilicus, and quick delivery. Some of his followers make one incision through the abdominal wall, uterus and occasionally a loop of intestine, the mind seeming to be centered upon quick delivery of the child. Such a proceeding wins the applause of the shallow-minded, but in a vast majority of cases it is entirely unnecessary. If four minutes are allowed in which to deliver a breech case after the body of the baby has been exposed to the air, I think we can be at least as deliberate in delivery through the abdomen. Of what avail is it to make a spectacular delivery in twenty or thirty seconds and then spend fifteen or twenty minutes in extra work in repairing unnecessary damage. If my cases have taught me anything, it is to be deliberate. We can keep cool, take our time and deliver in two minutes, and I have never failed to see a child resuscitated.

After our abdominal incision is made, gauze mops are carried into the abdominal cavity on either side in order to wall off the intestines. We then proceed to the incision of the uterus. Here the same particulars hold good as in making the abdominal incision, that is, we proceed in a cool and deliberate manner, make a longitudinal incision in the median line of the uterus, carrying it through whatever structure may intervene, provided that is not the baby. Make the incision deep enough to carry it through the uterine muscle, placenta and membranes, anything that may be in the way. The uterus will cease bleeding the moment the baby is delivered, unless you are too near the arteries about the cervix, and even they will nearly always stop of their own accord. Contrary to expectations the placenta give no trouble in so far as hemorrhage is concerned.

The baby is delivered quickly, in fact, almost delivers itself. It makes no difference what part comes to light first. There is no occasion for violence, and no great necessity for haste.

After the child is delivered the placenta and membranes are gently freed from the uterine wall. There will be a slight oozing as in normal labor. At this point, I think it wise to administer ergot by hypodermic. Personally, I cannot understand the fear of hemorrhage. I can only lay it to a mistake on the part of the pioneers in this operation in taking the amniotic fluid mixed with blood and sometimes meconium for pure blood. Cæsarian section is not without its dangers, but hemorrhage is not one of them.

The matter of whether or not to deliver the uterus before incising it agitates some operators. It has been my practice to incise and then deliver. It will be very quickly delivered after delivering the child, and through a smaller incision than before, and I think it wise to get the incision reduced to a workable one.

I have done both ways and can see no advantage in first delivering the pregnant uterus. The womb immediately contracts and can be delivered and the membranes carefully peeled off the endometrium, handling the interior of the uterus just as little as possible. Occasionally you will find a bleeding point in the uterine wall which needs tying, but that is seldom, and only when the incision has been carried low into the cervical segment.

The next step in the operation is the closure of the uterine incision. The first cases operated upon by me were sutured with plain No. 4 catgut, interrupted stitches. In the last twenty-eight cases, I have used plain No. 4 catgut but have used continuous sutures, sewing in two layers, beginning the first layer at the endometrial surface, embracing ⅔ of the thickness of the uterine wall, beginning the next layer at the peritoneal surface, and also embracing ⅔ of the uterine wall overlapping the first layer of stitches. The peritoneal covering has been closed over these muscular sutures by a continuous suture of No. 2 catgut. I have used continuous sutures for two reasons, one being the rapidity with which they can be applied, the other being the absence of knots. Of course, the interrupted sutures may be tied so as to bring the knots inside the uterine cavity, which leaves the matter of time as a factor alone. I have used plain catgut because it *can* be sterilized and has given as good results as can be claimed for chemically hardened or sterilized catgut.

After the delivery of the child, the interior of the uterus should be touched as little as possible because of the likelihood of infection from the vagina. Unfortunately, too many of our Cæsarian sections fail because of interference from below, before section.

The gauze mops are then removed and the abdominal cavity washed clear of all clots by means of saline solution. I think that the freeing of the abdominal cavity of blood and perhaps amniotic fluid is an important step. These are foreign to the peritoneal cavity and perhaps their intra-peritoneal putrefaction may give rise to stasis of the bowel and a consequent distention, written and enlarged upon by some operators. I have noticed a similar likelihood of distention in cases of ectopic gestation where it has been impossible entirely to free the peritoneal cavity of blood. My early cases were so entirely free from this complication of distention that I had thought the matter imaginary. I can see from my recent experience that the condition is not imaginary, and that furnishes me with the reason for closing the abdomen as strongly reinforced against strain as possible.

The abdomen is closed, first suturing the peritoneal layer of the sheath with No. 2 catgut. Stay sutures of silkworm gut are then introduced about ¾ inch apart. The anterior sheath is then

sutured with a coarse pagenstecker thread, and the skin is finally closed with catgut.

Let me say in closing that the surgeon who made the first section was never more scared than I at my first operation of this nature. It is hard for me now to remember what I was afraid of. I presume that fear of excessive hemorrhage was the one point that gave me the most worry, but I really think that I was actually afraid of the operation itself, simply because I was ignorant of it. I view no operation with contempt, no matter how insignificant, but let me say to you all, that the more you see this operation performed the more will you favor its performance.

You will see a beautiful baby quickly delivered with not a mark of violence upon it. You will see a mother convalesce just as quickly as in normal delivery, and she will be free from lacerations, such as follow version or high forceps application, with all the troubles that follow in their wake.

DIARRHŒA IN INFANCY AND CHILDHOOD.

By Henry Brewster Minton, M.D., Brooklyn, N. Y.

During the warmer months of the year, through the summer and early fall, the symptom diarrhœa is one of especial interest to the Pediatrist. Its association with a variety of diseased conditions need not detain us, for the reason that this opens up so wide a field of pathological anatomy that time alone must dictate its omission. We may consider this symptom and the therapeutic indications which follow therefrom quite apart from the diseased process present as based upon pathological tissue change. And we may consider it with profit. That is the more evident when we reflect that all of these processes are the result of bacterial invasion of the alimentary canal and that the local character and extent of the morbid process must be managed in much the same way, both from a preventive and curative point of view, regardless of the precise anatomical location or the exact pathological extent of the process.

Prevention of these diarrhœal diseases is recognized as of the utmost importance, and advances in infant hygiene and sanitation have accomplished much along these lines. Inculcating proper and cleanly habits for the entire people, the need for clean and wholesome food supplies, clean milk and water, are some of the momentous tasks which must be accomplished in the prevention of these diseases from a public health point of view. The complex condition of our present civilization brought about by our attempts to assimilate the hordes of barbarians, that is, barbarians

from a hygienic point of view, dumped upon our shores by the liberality of our immigration laws, increases the difficulty of prevention in all the more congested centers. The palace cannot be made safe against the bacillus which inhabits the hovel. The hovel must be eliminated. We must recognize that public health and hygiene are becoming more important to the welfare of the people than ever before. Nowhere is the advancement of sanitary science more fruitful of results than in the reduction of mortality among children from diarrhœal disease. The successful elimination of such diseases can only be accomplished by absolute cleanliness in the handling, transportation, care, and preparation of food. Food, fingers and flies are said to be potent agents in the dissemination of typhoid fever, and they are equally culpable in the ordinary diarrhœal diseases.

The treatment of diarrhœal diseases should be commenced by stopping all food for a period of twenty-four hours and then by inaugurating a modification of the dietary to meet the requirements of the particular case. Certain broad principles are here unfailing guides. The food which furnishes the least favorable culture medium for the offending bacteria should be selected. The various putrifactive bacteria are usually unduly active in the intestines, and the toxic products of their growth add not a little to the severity of the symptoms. For this reason the elimination of proteid food from the dietary is usually advantageous. In the case of a child over a year old this offers no difficulty, for such a child has sufficiently developed the ability to digest and assimilate starch as to be able to live upon a cereal gruel. This measure alone has rapidly cleared up many a persistent case in my experience. In infants the dextrinization of the gruel or the use of a malted cereal food for a short period is advisable, and then the prescription of a suitable modified milk formula. In certain cases putrifactive changes are not in evidence. The absence of the carrion-like odor of the stool and the presence of the distinctly sour type points to a disturbance of the amylitic function of digestion, and warns us that the starches and sugars of the diet are at fault. In these cases starch and sugar should be reduced or eliminated from the feeding formula until the trouble is under control. It is not my purpose to undertake to discuss the feeding in detail, but merely to point out that a proper correction of the feeding is a great assistance in the rapid cure of our cases by our remedies. Climatic changes, catching cold, etc., are at times causative, but when once established by such a cause the diet which formerly agreed may be quite capable of prolonging the trouble for a considerable period.

The symptomatology of these cases is usually extensive, and the wealth of thoroughly tried remedies should render rich reward

to a careful individualization in the selection of the remedy. The character of the discharge should be inspected and not infrequently will be suggestive of a trend of thought from which we ultimately will evolve the remedy. The green or greenish stool, especially in young infants, is very common. This characteristic suggests Ipecac, the stool of which is green like grass; and Magnesia carb., green like the scum of a frog pond; Argentum nit., green like spinach, or it may be green mixed with mucus, when Dulcamara or Ferrum phos. should be considered, the latter particularly if the discharge is thin and scant. There is a green stool with tenesmus under Mercurius. Possibly the color of the stool may not be suggestive or the shade and complexion of the case may not match the remedies which have come to our mind, or it may be that the foul odor of the stool may be insistent with suggestions of Baptisia, Kreosote, Lachesis or Arsenicum. The latter is especially suited to such cases when they have at the same time vomiting and prostration and often restlessness. It may be that there is a notable absence of odor about the stool, when the characteristic would count for Æthusa, Apis or Lycopodium. Or again the odor present is not infrequently sour, and if we have already seen it to be green as above, we have an added reason for using Magnesium carb. These two symptoms, sour and green, count also for Calcarea carb. and Rheum. With Rheum the whole baby smells sour, and also for Chamomilla, that sovereign remedy for the fretful, teething child. With Chamomilla we have some color change, and from green border upon yellow, watery or like chopped egg. This symptom is also found with Rheum and Sulphuric acid. The distinctly yellow stool is that of Croton tig. or Gamboge, and also Cocculus. In many stools we see the green characteristic, often the yellow, but probably the so-called undigested stool is present in the majority of the cases. This is so indefinite and so general a term that it may be considered to include any of the remedies we have already mentioned, but the stool we particularly intend to denote by the term is more characteristic of Podophyl., Sulphur, China, Phosphorus or Phosphoric acid, Aloes, etc. Having thus noted the color and odor, we may inquire into the quantity of the discharge and the manner of its evacuation. Profuse watery gushing as from a hydrant is of course Podophyl., and its discharge will be painless. The same profuse discharge with the absence of the usual or expected exhaustion is found under Phos. acid; and profuse after taking food or drink, especially if with vomiting, suggests Antimonium crud., when we would look also for the white-coated tongue and the symptom that the child cannot bear to be touched. Other suggestions might also be drawn from the quantity, but the quantity of the discharge other than its profuse-

ness is not very characteristic, for those moderate in quantity are legion, and the scant stool is not usually seen until we reach a grade of inflammation that carries the case out of this category and into the dysenteric type. In such cases we must make a new start in our consideration of remedies with Merc. corr., Colchicum, Arsenicum, Aloes, Cuprum, and Cantharis.

Pain or its absence gives further suggestion. With the painless stool of Podophyllum we should also associate China, Sulphur, and Phos. acid. Among the painful stools a prominent place is held by Rheum, with its griping, green, sour stool from a sour baby. A colicky patient who draws up his legs in pain is relieved by Chamomilla. The one who lies on his stomach seeking the relief which the boy who has eaten green apples finds in lying over a rail fence, is relieved by Colocynth. That is, pressure over the colicky abdomen relieves. Colic with fermentation in the bowels indicates China; with flatulence Calcarea phos., not forgetting, however, Terebinth, especially if the stool is such that it may be described as feathery, that is, the fecal particles separate from the water into which passed and do not stain it to a homogeneous mass, but float like so many feathers. Terebinth is in my experience a very satisfactory remedy to prescribe in these cases of diarrhœa with pain, flatulence, and tenderness and often muscular aching, for the results are most prompt and satisfactory.

The sudden forcible stool is Croton tig. The early morning stool driving one out of bed is so well known a characteristic of Sulphur as to be perhaps better omitted than mentioned. The early morning diarrhœa is also helped by Pod., Bry., and Thuja. With Bryonia the loose stool occurs as soon as the patient gets up and moves about, and with Thuja it occurs every day after breakfast. The involuntary stool of Arsenicum may perhaps warrant a further reference to its offensive stool, with vomiting, restlessness, and prostration. Prostration must not cross our mind without mention of Veratrum alb. Its exhaustion with cold sweat upon the forehead have become classical keynote symptoms. It is our most valued remedy in cholera infantum. Its symptoms are vomiting and purging, with exhaustion, cold sweat, and incessant nausea, thirst, to relieve which means more vomiting, etc.

A continued reference to other and even as well known and well tried symptoms and remedies might be profitable, but the list is so long that the patience of the writer and the listener would be more than exhausted should these suggestions from our wealth of remedies be carried to the end.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 7-E. Manic Depression (Stuperous Symptoms).

Case A is that of a robust young man 26 years old. His father, though a very successful business man, had to give up early in life because of a nervous breakdown, and two distant cousins on this side of the family had dementia precox. The mother's side is of vigorous stock.

The young man had a vague eye trouble which persisted over eight years, and for which he saw many oculists and had many glasses. There seems to have been an agreement that nothing definite could be found in the eyes. This eye trouble, however, prevented him from going on with college or persisting in any work. Latterly he developed an over-strenuous enthusiasm for sports, especially swimming and golf, and pursued them to the exclusion of normal duties. He was evidently queer, but it was difficult to know just how. He is a good fellow, courteous and considerate.

A year previous to attack he had diphtheria, followed by some nervous symptoms. It was thought best that he should try scientific farming, so he took a course and started a farm. In June, 1913, he went to dinner with some friends, had an attack of weakness followed by persistent insomnia, and went to a general hospital. Sleeplessness persisted, he grew very impatient and finally threatened to smash a window or jump out if he did not have his way immediately; he would as quickly quiet down and be sorry. In this state he was transferred to another hospital. At this time he was alternately restless and threatening, or somnolent, repentant and weeping. Said he could not remember. At times he was loquacious, swearing volubly. Tried to jump out of a second-story window. Saw resemblances to friends in all strange faces, had erotic fancies. Took rapid, violent likes and dislikes, had to be humored constantly, was afraid to be alone; complained of pains in his head and legs. His face was very red and conjunctivæ congested, and it was thought that he might have had a heat stroke. Later he got the idea that people controlled him in some vague way. His emotional state alternated quickly and without reason between fear, anger, combativeness, good-fellowship, amusement and supplication. There was frequent silly, irrelevant laughter. Over the first few weeks he would have remissions for a few hours when he seemed to be fairly rational and have some insight, but much of the time he would lie in a stuporous state with his eyes tightly closed, and refuse to be roused or answer questions. When awake, would talk much

about fighting, and would strike nurse or wrestle with him. After two months of this stuporous state, alternating with excitement, the condition lapsed into one of self-condemnation for the way in which he had treated his family. Insight gradually returned, and after four months he was practically well. Throughout the attacks there was no rise in temperature, and he took food well. At first he lost weight rapidly and had many boils, but during convalescence grew very stout.

Case B is a woman 23 years old, single, American. Her father died suddenly at 34 years, of heart disease. Mother is living and well, though there is much circulatory disease on her side of the family. The patient is the elder of two children. The other is rather backward, and did not talk until she was five years old.

Up to seven the patient had periods of inertia when she would lie around listlessly and refuse food, but after this age seems to have been an average girl, plodding, industrious, conscientious, though not over-bright. When any sickness came she had it severely, and was always thin and pale. Subject to tonsilitis. Menstruated normally at 13. Finished grammar school at 13 and high at 17. She went to college and did well enough until her senior year, when she had a nervous breakdown. Enteroptosis was then the diagnosis by Bismuth X-ray pictures, and she was out a year. At this time she was irritable, sensitive to noise and easily fatigued, chronically tired. She improved much, however, and returned to college in Fall of 1913. Two months later she had an attack of tonsilitis with peritonsilar abscess. Menses stopped in January (1914) and in February she sent for her mother to come and take her home, because she was confused and could not pack up her things. She was taken home, but refused to go to bed, and mother stayed with her because she was afraid. She was sleepless, and her mind was evidently not clear, but she lay quietly in bed. The next afternoon she ran out into the street in her night-dress, and was coaxed back with difficulty. She was taken to a hospital that evening, and was excited, sleepless and fearful, and was committed the next day. The paper states: She was irritable, restless and suspicious. "The room gets dark and it gets light all night." "It is full of strange and horrid people who talk and punch me, they say all kinds of things."

Since then her condition has varied between a series of more or less definite phases: (1) She has periods of distinct pressure of activity, when she bustles about, helps clean her room, plays nurse and waits on the other patients. In this condition she is happy and boisterous. This phase is followed after a few hours (2) by periods of unreality with active hallucinations in which she

lies rigid on the bed, her eyes either open and staring, or closed with a coarse tremor of the lids. This stupor may last from a few hours to a day or so. During the attack it is difficult to feed her because of the rigidity of the jaws. She gradually wakes from this state and passes into (3) one of argument and discussion in which she talks and reasons most absurdly, passing from one association to another in an incoherent and incomprehensible manner. This state in turn wears off gradually, and is followed by (4) a state of entire rationality with a delightful personality and a normal sense of humor. (5) Then comes a period of depression in which she "has done something awful," though this phase seems more a matter of words than of deep feeling. At these times she is obstinate, and refuses food and medicine.

This series of events may all transpire within a single week and in any sequence, without any apparent reason except the character of the ideas which happen to be dominant at the moment. Beside these regularly recurring phenomena there has once appeared for a few days a period of suspicion and craftiness, with strenuous efforts to escape. She has also at times been impulsive. throwing dishes about and striking other patients.

Mental examination shows the patient to be highly distractible;—*i. e.*, the shaking of a bunch of keys is enough to distract her from her train of thought to some idea associated with keys. A word loudly spoken will shunt her on to an elaboration of ideas connected with such stimulus word. Trains of thought are seldom followed to their logical conclusion. The emotional field is vacillating and disturbed, but she knows persons, place, and time. Physically she has a hemaglobinanemia (60 Hb) on color scale. The urine is concentrated, but otherwise normal enough.

Discussion.

Here then are two cases of the mixed type of Manic Depression, both presenting stupor, and both of which are somewhat difficult to differentiate from dementia præcox. They both occur at the age suitable to præcox, and both have symptoms resembling katatonia. But the first patient has now been well for over six months, and the second is recovering.

"This mixed type of manic depression," says Dr. Frederick Peterson, "is theoretically and practically very important." Kræpelin refers here to those unaccountable changes from exaltation to depression and vice versa, and to the actual mixture of simultaneous manic and depressive symptoms, which are either transitory or persistent. He describes forms of exaltation with decided dearth of ideas, slow and inaccurate attention with times

of very inadequate response. With it all the patient is cheerful, laughs, is excitable, makes fun, but the restless activity is limited to a few pranks or outbreaks occasionally. In extreme cases patient appears almost stuporous, hence the term manic stupor.

Speaking of the psychopathology of this state of mind Bianchi says: "Mental confusion consists in the disassociation of ideas, in the incapacity for reciprocal evocation, and the difficulty in the more serious cases of recognizing the objects of the external world. This leads to disorientation of the personality in time and space. The personality is no longer sure of itself, the judgment of identity is confused and uncertain, as if the subject had lost the thread of his history, by which he might transport himself into the past, and the thread of imagination which leads to the future.

"With the disassociation of ideas there disappears the syntactic and sometimes also the grammatical form of thought.

"Isolated groups of ideas succeeding one another without any bonds of association, and wanting in any correspondence with real things, follow one another like the ruins of an edifice that has crumbled away—we must recognize a long gradation of confusion. In the lowest grades the subjects, generally neurasthenics, lose the thread of their ideas, remain at a loss for a time, and then sometimes exclaim, "What was I saying just now?" Sometimes the consciousness is void of ideative content; no representation is formed there or is recalled. This is the case in states of profound stupor or in the so-called amentia of Meynert and others. Both the confusion and the stupor may be interrupted by hallucinatory episodes."

According to Dr. Maurice Craig (Psychological Medicine) the best clinical classification of stupor is (1) anergi stupor; (2) post melancholic stupor, sometimes called delusional stupor; (3) post maniacal stupor; (4) Katatonic stupor. It would appear to the writer that (2) and (3) could well be combined in the name of manic stupor from our present Kreapelnian point of view that depression and excitement are merely the black and the silver side of the same mental cloud.

(1) Anergic stupor is the state of amentia just described by Bianchi as a dearth of ideational content. (2) and (3) are sufficiently described in the cases here presented. (4) Katatonic stupor is best described by Stoddard (Mind and Its Disorders). He says:—"Katatonic stupor is occasionally preceded by a period of depression; usually it starts de novo. The patient becomes quiet and reserved, and gradually passes into a condition of negativism—there is peripheral anæsthesia—perception is good and hallucinations are unusual, but appear in a fair proportion of cases. There may be depression, excitement or apathy. Katatonic

stupor is the most characteristic variety of dementia præcox. Atavistic signs and other stigmata are here most frequently encountered. It is in this form of dementia præcox that mannerisms, negativism, stereotypy, verbigeration and automatic obedience (echopraxia and echolalia) may be best studied."

"The patient sits in a lounging posture, with hands in lap, or stands apathetically about the corners of the room. He cannot be induced to speak (mutism) or at most answers in monosyllables. He is not, however, in a stupor, and knows all that is going on about him. The limbs may remain in any attitude they are placed in (flexibilitas cena). Some wander up and down spiral-wise like a caged animal. There may be œdema of hands and feet, and the extremities are liable to be abnormally cold and cyanosed."

This last form of stupor, therefore, can hardly be mistaken for that confusional state of the ideational processes seen in manic stupor.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors. Reprints furnished at cost.

HOW DO WE STAND AS ALUMNI?

The welfare of an educational institution is largely dependent upon its alumni. Actual statistics show that few students enter any college without the direct or indirect influence of some alumnus, that few endowments and gifts are made without the urgent appeal of some one to whom his alma mater is a daily impulse and living actuality. Does the Medical Department of Boston University have, as it should, this activity and co-operation on the part of its Alumni?

Certainly on the part of some of its graduates the loyalty record of our Medical School is surpassed by that of no other. If every alumnus could but know, for instance, the unceasing details of work of the Finance Committee in its recent and present activity, he could not help but be stimulated by its enthusiasm in spite of himself. But there are many alumni who do not know, who do not even seem to care to know. Among these may be classed those graduates whose affiliation purposely ceased at once with their graduation from the School, as well as those whose enthusiasm and loyalty, by reason of distance or pressure of outside work, has gradually slipped away. It is true that in a professional school, unlike an academic college, there are but few undergraduate activities such as athletics, etc., to maintain its name publicly before all its graduates far and near, but little to help keep alive that interest which causes an "old grad" of forty years ago to "root" as vigorously as the youth of twenty by his side at the game, and which inspires him to return again and again to his class reunions. But in a certain sense the Medical School has done far more. As an educational institution it has put upon him the final touches for his life work, and given him opportunity to make name and fame, as well as to do service to the world, bounded only by his own limitations. Why then, should appeals for aid of Boston University School for Medicine

receive response from only a comparatively small number of its graduates? True, much has been accomplished from every standpoint in the past few years, but largely through the minority of its alumni. The work, however, has but just begun. It is not necessary here to recount the positions of honor which the School has filled by efficient men and women, nor to recount in detail the unlimited opportunities for the development of medical teaching in such a school, which gives its students not only "all that pertains to the great field of medical learning, but also a special knowledge of homœopathic therapeutics." For those few who renounce homœopathy immediately after their graduation this is not intended,—their place is not with us nor with the old school. It is somewhere outside the practice of medicine. But there are others who have been forgetful or wilfully negligent of their alma mater. Yet, but for this same alma mater they would not have had opportunity to be so busy as to be either forgetful or negligent of its interests. Not only is money a need, but the need is for men and women of the right calibre in its classes as well. The school is this year raising the standard of its entrance requirements and demanding a higher preliminary educational plane. It *must* depend upon its alumni to fill the ranks of the coming entering classes with the students who ought to be there; and any prospective medical student will naturally be most influenced by the man who shows the most enthusiasm for his own alma mater. Why should not every alumnus then catch up a bit of real loyalty and spend at least a short time in sending some one else to the institution which has made him what he is? Certainly there has never been a time when he could more confidently do so than now. Ever increasing clinical facilities, ever widening fields of research, constantly growing enthusiasm for the interests of B. U. S. M. on the part of every member of the faculty and student-body, rich promises for the future limited only by the loyalty and generosity of its alumni;—these are here and waiting. How then, as alumni, far and near, do we stand? What shall be our attitude and our part in the future of our alma mater? If its future be limited, as it is, only by the loyalty and generosity of its alumni, can we not make it unlimited in possibility and accomplishment?

H. E. D.

ATLANTIC CITY 1914 SESSION OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

The seventieth annual meeting of the American Institute of Homœopathy, held at Atlantic City, June 28 to July 3, inclusive, was of unusual interest, and the papers presented were of high scientific value.

The attendance was larger than at any previous meeting for a good many years;—in round numbers, nearly 1,200 physicians and visitors. There was a registration of members numbering 600.

Real summer weather prevailed, but without any extreme heat, and the meeting place for scientific sessions was entirely satisfactory, free from noise and confusion either from the ocean or from outside traffic.

The Institute had as its guest of honor Dr. E. Petrie Hoyle, of London, who in stereopticon lecture told of the excellent work being done for homœopathy in Europe. That there is decided increase in interest in matters homœpathic in the Old World there can be no doubt.

Dr. James C. Wood, of Cleveland, chairman of the special committee appointed by the Institute to confer with the College of Surgeons, reported that the A. I. H. has been placed on the same footing and has been given the same recognition as the American Medical Association with the Clinical Congress of Surgeons of North America and other societies. The three subsidiary societies of the Institute, namely, the Surgical and Gynæcological, the Obstetric, and the O. O. and L. Society, are admitted to the Congress with the fifteen others now recognized by the College. "Your committee," said Dr. Wood, "believes that it is the intention of the Board of Regents of the American College of Surgeons to see that the homœopathic societies have a fair representation on both the Board of Governors and the Board of Regents. Your committee therefore recommends that the American Institute pass a resolution endorsing the American College of Surgeons and promise its support in promoting the objects and aims of that organization." The resolution was so adopted.

The treasurer, Dr. T. Franklin Smith, reported the largest balance in the treasury that the Institute has ever had.

The social features of this Atlantic City meeting were most enjoyable. The "deep sea sail" on Wednesday afternoon, the numerous dinners and smoke talks given by the various fraternities, and the charming entertainments given the visiting ladies by the ladies of Atlantic City, under the auspices of the Meissen, afforded opportunity for social intercourse and for having a thoroughly good time. Every succeeding meeting of the Institute

emphasizes the added pleasure and attraction in having the attendance of the ladies at these conventions.

The meetings of the O. O. and L. Society, which were held in an adjoining hotel, were well attended, and the papers presented were of a high order.

Throughout the meeting there was marked evidence of homœopathic interest and propagandism.

The president, in his preliminary address, outlined a plan for the reorganization of the Institute by the federation of state societies, the idea being to federate into one scientific body all of the state societies, all homœopathic hospitals and all homœopathic medical colleges of the country, thus unifying our interests and centralizing our power. At the present time we have thirty-six state societies, ninety-six subsidiary societies, and one hundred hospitals, all working independently without coöperation with the Institute. This suggested reorganization was considered by the committee on the presidential address, which committee recommended to the Institute trustees the adoption of said plan. This will be taken up by the trustees at their December meeting, and worked out to a practical conclusion.

The Institute also put itself on record as favoring the employment of a business manager to look after the financial and material interests of the organization and the cause of Homœopathy at large in the United States.

The Council on Medical Education reported the final establishment of a Department in Homœopathy in the Ohio State University. It also reported the excellent work done by Mr. Arthur Warren Smith, who was appointed by the Council to study the situation at Kansas City, and to report the feasibility of re-establishing Hahnemann Medical College in that city. His report was to the effect that ample funds were in sight to put this college on a firm financial and teaching basis, with the establishment of an up-to-date hospital in connection with it.

Dr. G. Harlan Wells, chairman of the press committee, distinguished himself as an able chief, getting for the meeting the best newspaper reports which the Institute has ever had. The entire press of the country gave prominent space to reporting the sessions of the Institute, emphasizing the scientific value of the work done by its members, together with the marked growth and enthusiasm in matters homœopathic.

The meetings closed with an extremely enjoyable entertainment on Friday evening, July 3, the program made up of professional and Institute talent, making a combination of unusual interest and eliciting much laughter and applause. It gave the finishing touch to a very successful session of the Institute.

The meeting place for 1915 was not decided upon, but it was left to the Board of Trustees to settle at their December meeting to make the choice between the three suggested places—Portland, Oregon; New Orleans, and Long Beach, Long Island.

LIST OF INSTITUTE OFFICERS FOR 1914-15.

President, Byron E. Miller, M.D., Portland, Oregon.
1st Vice-President, H. H. Baxter, M.D., Cleveland, Ohio.
2nd Vice-President, Mary E. Mosher, M.D., Boston, Mass.
Secretary, Sarah M. Hobson, M.D., Chicago, Ill.
Treasurer, T. Franklin Smith, M.D., New York City.
Trustees for three years:
Walter Reily, M.D., Fulton, Mo.
C. E. Sawyer, M.D., Marion, Ohio.
Jos. P. Cobb, M.D., Chicago.

Officers of the Obstetrical Society.

President, Rob't M. Richards, M.D., Detroit, Mich.
1st Vice-President, A. H. Gordon, M.D., Chicago, Ill.
2nd Vice-President, L. S Loizeaux, M.D., New York City.
Secretary and Treasurer, H. D. Bishop, M.D., Cleveland, O.

Surgical and Gynæcological Society.

President, Claude Burritt, M.D., Ann Arbor, Mich.
Secretary and Treasurer, Scott Parsons, M.D.,
Officers appointed to represent the Institute on the Board of Governors of the College of Surgeons:
Drs. C. E. Sawyer, D. G. Wilcox, Scott Parsons, W. G. Crump, Gilbert Fitz-Patrick, George R. Southwick, and from the O. O. and L. Society, Drs. George B. Rice, Royal S. Copeland and Burton Hazeltine.

"BARBARA FRIETCHIE."

Up from the Institute rich with cash
There spread the news with a mighty flash,

That Horner had quit the editor's job,
And his place was open to the howling mob.

Round about the news spread fast
That this soft berth was loose at last.

Fair as a garden of the Lord,
Appeared this job to the famished horde.

On that bright morn in the winter's wake,
When Horner lay down and threw up the cake;

Forty notes with their accents true,
Forty men thought they could do

The little job o'er which Horner had sweat,
And do it a darned sight better yet.

The sun of noon looked down and saw not one.
Up rose good Sarah Hobson then,
With half of fourscore years and ten.

Best of all on the Institute list,
She got the job which the men had missed.

In her Chicago office the Journal she set
To show that a woman can edit, you bet.

Up from the ranks came an awful yell;
The men were simply raising ———

To think that a woman could fill a chair,
When none but men had squatted there.

Down the street came the rebel crowd.
The men were talking and yelling loud,

How the Institute surely would become infernal
With only a woman to run the Journal.

"Halt!" Every man in ranks stood fast.
"Fire!" Out blazed an awful blast.

It shivered the windows and raised the hair;
But really it was nothing but just hot air.

Quick as it fell, from the howling mob
A woman appeared called Sarah Hob.

She leaned far out from her Chicago flat
And the bloomin' crowd took off its hat.

"Shoot if you must my only head;
But spare the damned old Journal," she said.

A shade of sadness, a look of shame
Over the face of the fellows came.

The noble nature within them stirred,
When Sarah swore that little word.

"Who says a word against our "Ed"
Dies like a pirp. March on!" they said.

And all day long through Chicago's din
Sounded the scratch of Sarah's pen.

And all the year through you'll read and rejoice,
And just thank the Lord it was Hobson's choice.

The day of the Editor-man is o'er,
And Horner sits in the chair no more.

Honor to him, and let us say
He was a bully good editor, every day.

Already our Sarah is "going some,"
And she'll surely make that Journal hum.

So when you vote next year, my pal,
Just drop a ballot for the Hobson gal.

PRESS NOTICE OF THE ATLANTIC CITY INSTITUTE MEETING.

The following summary published by the newspapers of the country will serve as an illustration of the publicity given the Atlantic City meeting.

Asks Recognition for Homœopathy.

Retiring President of American Institute Would Have Its Teaching Made Obligatory in State and General Colleges.

[FROM PUBLIC LEDGER BUREAU.]

ATLANTIC CITY, July 5.—Formulation of demands that every State and general university medical college be required to provide instruction in homœopathy for students who prefer that branch of medicine, is proposed by Dr. De Witt G. Wilcox, retiring president of the American Institute of Homœopathy, which has just concluded its 70th convention here.

In discussing the work of the convention and its allied bodies and plans for the future, Dr. Wilcox said:

"The convention was the largest in the history of the Institute. The papers were extraordinary in their scientific value and in accord with all recent technical investigation.

"There is a call all over the country for homœopathy. This is evidenced by our work in Boston, in New York, in Ohio, in Chicago and other places. The Council on Medical Education of the Institute is conducting an extensive campaign of publicity covering the entire United States; is standardizing, through a careful survey, all hospitals and medical colleges and general institutions under jurisdiction of homœopathic medical control and is working in the literary colleges of the country, winning students for homœopathy.

"Our distinctive school is justified by the world's demand for the beneficent effects to be derived from the treatment of the sick by the homœopathic principle of drug selection. This principle is being demonstrated in our research laboratories and is being accepted by all scientific bodies. In our schools we teach all that is taught in the other schools plus homœopathic therapeutics.

"Homœopathic physicians have demonstrated in this last 100 years that the homœopathic method of drug selection is scientific beyond question in that it has stood the bedside test and it is today standing the crucial test of laboratory research and practical demonstration. The modern method of vaccine treatment is accredited by the most reputable laboratory workers to be a verification of its law of similia as enunciated by Hahnemann.

"It is the wish and aim of the American Institute of Homœopathy so to educate the public concerning the beneficent effect of the homœopathic method of treatment for such diseases as are amenable to internal remedies that public opinion will demand that all medical colleges under the control of the State and universities teach homœopathy."

BOOK REVIEWS.

Practical Therapeutics including Materia Medica and Prescription Writing, with a Prescription of the most Important New and Non-official Remedies Passed upon by the Council of Pharmacy and Chemistry of the American Medical Association, by Daniel H. Hoyt, M.D., formerly Instructor in Therapeutics, University of Pennsylvania; Fellow of The College of Physicians; Assistant Physician to the Philadelphia General Hospital. Second Edition revised and re-written. Published by C. V. Mosby Company, St. Louis, 1914. Price $5.00. Cloth.

As a book for quick reference to the important uses and dosage of drugs or to rapidly determine the accepted line of treatment in a given disease, this book will be found most convenient. It contains a brief description of

many of the newer remedies, especially those which have been accepted by the Council of Pharmacy of the American Medical Association. Drugs are arranged under two headings: First—Therapeutics, and Second—Alphabetical, and there is a good index. From a purely old school standpoint this is a convenient book. From the point of view of the homœopath, it has little excuse for being. The description of Physiological Drug Action, which in such books as H. C. Wood's, Shoemaker's or Potter's, might be taken as a basis for a similimum, are totally lacking in Dr. Hoyt's book.

It is printed on a light pulp paper, and well bound.

REVIEWS OF MEDICAL JOURNALS.

The Journal of the American Institute of Homœopathy. May, 1914.

1. *Ptelea Trifoliata.* Rabe, R. B.
2. *Vaccine and Serum Therapy.—A Review.* Humphrey, W. H.
3. *Case of Aneurism of the Transverse Arch of the Aorta.* Rowe, F. E. Report with autopsy findings by W. H. Watters.
4. *Further Observations of Indicanuria.* Askenstedt, F. C.

The author gives the following summary of his study and personal experiments.

1. That the indican-urea ratio presents normal fluctuations of as much as 33 per cent, and possibly more, of the average ratio.
2. That the withdrawal of all proteids from the diet most certainly reduces the amount of the aromatic bodies in the urine.
3. That the immediate effect of fasting is a greatly lowered indican-urea ratio during the first day, probably from decomposition of the bile and the intestinal secretions, with lack of peristalsis; and that this is followed by an unusually high ratio on the day when feeding is resumed.
4. That the variations in quantity or kind of starches and fats of a normal mixed diet have no perceptible influence on the amount of indicanuria.
5. That the quantity of the urinary excretion does not bear any relation to the output of indican in twenty-four hours' urine when the kidneys are normal.
6. That higher indican-urea and glycuronates-urea ratios are obtained by substituting milk for meat or eggs in the diet.
7. That many, if not most, of the commercial preparations of lactic acid bacilli are sterile, and therefore, inert as means of controlling intestinal putrefaction.

5. *Postoperative Abdominal Adhesions and Sepsis—Some Ideas as to their Prevention and Treatment.* Crump, W. G.
6. *The Influence of Disease in Modifying the Secretions, Excretions and Fluids of the Body.* Krauss, J.

A condensed review of the physiology of the body fluids with definitions of many varieties of auto-intoxications. Much of this is hypothetical although advanced by the author as if well established facts. He dwells especially on the urine because this part of his subject is more familiar to him than feces or blood, and consequently he gives a somewhat biased opinion as to the importance of urinary findings. Some of his statements are certainly open to question; but as the paper is not a good example of the scholastic ability of the author we refrain from any discussion.

7. *Preventive Medicine.* Phillips, G.
8. *Topical Application in Dermatology.* Bernstein, R., or Does Local Treatment Interfere with the Action of Potentized Remedies?

The absurdity of "driving an eruption in." An interesting discussion with conclusions of a hypothetical nature in spite of the author's able attempt to prove his point by facts. He considers that a remedy may be used to advantage when topical applications are being used.

C. W.

The North American Journal of Homœopathy. May, 1914.

1. *The Diseased Tonsil and Its Sequelæ.* Clark, L. H.
2. *Tuberculosis Treatment.* McDuffie, M. W.
   Praises garlic juice ½-1 dram t.i.d. per oz. in water as a specific.
3. *Modern Tendencies in Psychiatry,* Walsh, W. T.
4. *Reports of Medical Cases.* Mills, W. S.
5. *Orthopædics in General Practice.* Bingham, A. H.

C. W.

The North American Journal of Homœopathy. June, 1914.

1. *Treatment of Gastric Ulcer.* Upham, R.
   A review of allœopathic treatment without reference to homœopathic treatment. We hope the author does not go under the name of a homœopathic physician.
2. *If Homœopathic Prescribing Is of Advantage to the Operating Surgeon, Who Is to Do It, the Operator Himself or an Associated Materia Medicist?* Fobes, J. H.
   The author after a brief discussion of the subject considers an Associated Materia Medicist an adjunct of importance to the surgeon.
3. *Vesical Calculi. Report of a Case.* Schall, J. H.
4. *Shingles Treated by High Frequency.* Minton, H. B.
5. *"Gradually Losing Sight."* Moffat, J. L.
6. *Convallaria Majalis.* Turton, M. L.

C. W.

Berliner Homöopathische Zeitschrift. May, 1914.

1. *Aqua marina (Plasma de Quinton) in Practice.* Gisevims.
2. *Henri Bergson and Homœopathy.* Schlegel, E.
3. *Old and New Regarding Scrofula.* Kranz.

C. W.

Homöopathische Rundschau. June, 1914.

1. *Hints for Selection of the Remedy. IV.* Dahlke.
2. *Colds...* Werner.
3. *Animal Diseases.* Deicke, H.
4. *Homœopathy and High Schools.*

C. W.

SOCIETIES.

New Hampshire Homœopathic Medical Society.

The sixty-first annual meeting of the New Hampshire Homœopathic Medical Society was held at the Laconia Tavern, Laconia, on Wednesday, June 17th, 1914.

The meeting was called to order at 2.15 P. M., by the President, Dr. Chas. A. Sturtevant of Manchester.

At the regular business session, four new members were elected, as follows:

Dr. E. W. Coates of Farmington, Dr. Harry E. Davey of Keene, Dr. Arnold W. Moore of Penacook. Dr. J. A. Wrisley of Lakeport, a former member of the Society, was re-elected to membership.

Dr. E. D. Stevens of Francestown and Dr. E. S. Eveleth of Concord were received as delegates from the Massachusetts Homœopathic Medical Society, and Dr. E. D. Stevens and Dr. B. C. Woodbury of Portsmouth were elected delegates to the American Institute of Homœopathy.

The business of the Society having been transacted, the meeting was devoted to the reading of papers and the general discussion of Psychotherapy, which was the topic of the afternoon.

Dr. Frank C. Richardson of Boston read a paper on "Some Modern Psycho-therapeutic Views." Dr. Arthur H. Ring of Arlington, Mass., presented a paper on "Psychoanalysis."

The discussion of these papers was open to members of the Society and visiting physicians.

In order to discuss these excellent papers successfully and to consider their relative merits, the reviewer would need to possess the qualifications of the psychologist, the psychiatrist, and finally to be exceedingly well versed in the history of nurology, and the modern methods of psychotherapy.

In a world of changing medical beliefs, methods and opinions, it is well that we still retain sufficient of therapeutic conservatism to appreciate the attitude with which the general consideration of these subjects was approached.

Dr. Richardson cautiously and carefully considered the Freudian theory of sexual repression, and its consequent symptomatic expressions; entered into a general discussion of psychoanalysis, dream analysis, the diagnosis of mental traumata by aid of the cathartic method, and finally called attention to the possible errors and dangers which might arise as the result of the too specific application of the psychoanalytical method.

While he did not hesitate to attack the subject at what he considered its weakest and most vulnerable points, Dr. Richardson was frank in his conviction that in its final analysis Freudism was but one of many psychotherapeutic methods, and was firm in his prediction that it will not prevail.

Dr. Ring, on the other hand, made bold to enter a defense of the practical and scientific application of Psychoanalysis, as presenting an accurate and for the most part a safe method of investigating, uncovering and correcting a variety of mental disorders. His definitions of the complex and interesting terminology of this modern school were very lucid, and it was clearly evident that he is well acquainted with their application.

It is interesting to psychologize the ordinary events of life, and to correlate them to antecedent and predetermined desires and wishes of the individual. It is equally fascinating to unravel the intricate tangles of the mental complex; to analyze the dream content, and to find in their outward symbolism their inner hidden meanings.

The variety and delicacy of these interesting phases of psychoanalysis were clearly illustrated by a series of instructive cases.

There must truly be much of interest and fascination in this method of psychological analysis, by which the modern mental sleuth ferrets out the hidden secrets of human misery and discontent, and by their free and open discussion turns the disordered mental emotions into the channels of health.

By this means the psychotherapist hopes to pluck out the hidden sorrow of a disappointed love; remove the hurt of a wounded pride; apply a balm to a broken heart; and thus to minister to a mind diseased.

The subject of mental diseases must be approached in all seriousness, yet those who champion this or any other psychotherapeutic method must not forget that, while psychoanalysis will in the long run prove of great value in obtaining the complete history of disease, the century-old method of symptom-similarity to which we as followers of Hahnemann most heartily and faithfully subscribe will still be found the one most helpful and efficient method of healing the sick.

The lateness of the hour prevented a thorough discussion of these interesting papers on psychotherapy, but in the progressive present we should look hopefully forward to a better understanding of the subject of mental therapy, which may be said to offer an exceedingly broad and interesting outlook for the future.

From the fact that the attendance at this meeting exceeded any other held within the past five years, we feel justified in the belief that Homœpathy is yearly gaining in interest and helpfulness to the members of this Society.

A banquet was held at 6.30 P. M., to which a large number remained. It is only hoped that the increasing interest here manifested will continue and gain a fresh impetus for the future.

Dr. Fred S. Eveleth of Concord was elected President; Everett W. Coates of Farmington was elected Vice-President; otherwise the list of officers remains the same as last year's.

B. C. Woodbury, Jr., M.D., *Secretary.*

International Homœopathic Association.

The 35th annual meeting of the International Hahnemannian Association was held at the Holmhurst, Atlantic City, New Jersey, on June 25, 26 and 27, with a program of between eighty and ninety papers dealing largely with materia medica, therapeutics and homœopathic philosophy. Especially interesting papers were those by Drs. John B. Campbell of Brooklyn, Guy B. Stearns of New York City, E. E. Case of Hartford, Connecticut, and E. W. McAdam of New York City. Important contributions dealing with educational problems were read by Drs. Stuart Close of Brooklyn and P. E. Krichbaum of Montclair, New Jersey.

The following officers were elected for the ensuing year:—

President, Edwin A. Taylor, M.D., Chicago.
Vice-President, Margaret Burgess Webster, M.D., Philadelphia.
Treasurer, William R. Powell, M.D., Philadelphia.
Secretary, Frank W. Patch, M.D., Framingham, Mass.

It was voted to hold the 1915 session at Niagara Falls.

Homœopathic Medical Society of the County of Kings.

The 475th regular meeting of the Homœopathic Medical Society of the County of Kings was held at the Medical Library Building, Brooklyn, May 26. The occasion was the second annual visit of the Homœopathic Medical Society of New York County, the papers of the evening being furnished by the visiting society. Dr. Walter J. Crump, president of the New York society, was invited to preside.

Dr. H. C. Duncan presented a paper entitled "The Unmodified Antitoxins; a New Method for the Prevention and Cure of Disease." Dr. Duncan's paper was on the nosode theory with the addition of the intermediary host, the products of disease to be fed to cows or other milk-producing animals, and the milk given to the patients. In the case of infants the mother was to be the intermediate agent. Dr. Duncan told of his success in the treatment of disease by this method and spoke of it as being an advance upon his former ideas of treatment by the nosode direct. The paper was discussed by Dr. R. I. Lloyd, Dr. A. Von der Luhe, Dr. W. H. Freeman, Dr. Rudolph Rabe, and Dr. M. Turton.

Dr. Rudolph Rabe read a paper entitled "The Use of the Homœopathic Remedy in Emergencies." Dr. Rabe's paper was a plea for a saner homœopathy, the use of the remedies where thy were indicated. He mentioned empyema as an instance where the remedy would fail unless surgery were also called in to assist the prescriber. This paper was discussed by Dr. Freeman, Dr. Lloyd, Dr. J. B. Given, Dr. John F. Ranken, Dr. L. D. Broughton, Dr. Orando S. Ritch, Dr. J. A. Stewart and Dr. Walter J. Crump. It was an interesting discussion of the methods of teaching in the colleges, and whether the homœopathic philosophy received its full share of attention, the difference in views of the various professors making a difficult problem for the student and probably accounting for the lack of real homœopathic prescribing when young men enter the hospitals as internes and engage in active practice. Dr. Rabe brought out the curious fact that it is rare for a homœopathic prescriber to be called in consultation, the rule being most universal to call consultants for diagnosis.

Dr. Reuel A. Benson read a paper entitled "Observations on 1,500 Artificially Fed Infants." The paper was a review of the work done in the milk depots for infants in the city of New York. This paper was discussed by Dr. Jeremiah T. Simonson and Dr. W. R. Iszard.

L. D. Broughton, *Secretary.*

American College of Surgeons.

The second convocation of the American College of Surgeons was held at Philadelphia, June 22, 1914, at the Bellevue-Stratford Hotel. At this meeting some eight hundred surgeons of the United States and Canada received the degree of "Fellow of the American College of Surgeons." These with those who were previously admitted to to fellowship, and including the

founders, make a total membership now in the College of about two thousand. It was reported by the secretary that there are yet some two thousand names to be acted upon, one thousand of which will probably be received at the November convocation.

It was an imposing sight to witness the procession of a thousand or more of the Fellows arrayed in caps and gowns march from the Garden Room of the hotel to the Grand Ball Room above. Every Fellow was gowned in the prescribed regalia of the College, which added materially to the impression of solemnity and dignity.

On the platform were seated the Officers, Regents, and many of the Governors. To any one who may feel at all critical toward this organization, on the ground that it savors of trades-union, monopoly, or an aristocracy of surgeons, he need only read the Fellowship pledge, to be assured that its motives at least are unselfish and altruistic. If any great proportion of the Fellows of the American College of Surgeons lives closely to the pledge, the institution cannot but have a very salutary effect upon the entire American profession. The pledge is as follows:

Recognizing that the American College of Surgeons seeks to exemplify, enforce and develop the highest traditions of our calling, I hereby pledge myself, as a condition of fellowship in the College, to live in strict accordance with all its principles, declarations and regulations. In particular I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interests of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money-seeking and commercialism as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's right; and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to cooperate in advancing and extending, by every lawful means within my power, the influence of the American College of Surgeons.

When any organization of men, be they professional, mechanic, or artistic, make their opening declaration to read "I pledge myself to place the welfare of my patron above all else," there is little danger of the community, dependent upon that organization, being at all injured.

The evening exercises consisted of:

8.00. Fellows and Guests assemble.
8.10. Governors assemble.
8.20. Candidates for Fellowship assemble.
8.25. Regents assemble with Honorary Guests.
Invocation by Bishop Rheinlander.
Introductory remarks by the President.
Presentation of the Roll of Candidates for Fellowship by the Secretary.
Conferring of Fellowships by the President.
Introduction of Honorary Fellows individually by the Regents and conferring of Fellowships by the President.
Fellowship Address by James G. Mumford.
Address by the President, J. M. T. Finney.
Adjournment followed by an informal reception to the Fellows and Guests by the Officers of the College.

In the afternoon an informal session was held, at which a number of matters pertaining to the welfare of the College were considered by the Fellowship at large. It was deemed expedient to raise an endowment fund of a half million dollars to secure permanent and adequate headquarters at Washington, D. C., where a suitable library and museum can be housed, and where the necessary permanent officers and attendants can be quartered. For this

purpose a general plea was made for pledges of five hundred dollars each, payable in five years with interest at five per cent. One hundred thousand dollars was raised in the afternoon with pledges in sight which will assure the half million endowment.

After the next convocation, in which applications now before the Regents will be acted upon, the membership in the College will be obtained only by a strict investigation of the claims of every applicant, as to the amount and quality of the surgery done by him. Instead of the ubiquitous written examinations a better test will be established, namely, every applicant must give the particulars of fifty consecutive, recent major operations performed by him, the details consisting of name and address of patient, names and addresses of assistants and etherizers, name of hospital, amount of ether, diagnosis prior to operation, details of operating, condition disclosed by the operation, immediate and end results.

It is not the intention of the College to take in young men who have not done a certain amount of surgical work, or served in certain hospital positions; but rather to defer their Fellowship until they have fully established their rights to secure such Fellowship. This College has come to stay and if conducted on the high plane for which it apparently now stands, and if kept free from selfish or grasping cliques and confederated interests, it will do much to bring not only the work itself to a higher plane, but will materially better the individual surgeon. We were pleased to note that some three of our women surgeons received the Fellowship.

Clinical Congress of Surgeons of North America.

The fifth annual session of the Clinical Congress of Surgeons of North America will be held at London, England, in the week of July 27, 1914. It will be a notable gathering of surgeons and surgical specialists in London to witness the British surgeons as they exhibit their surgical skill in their accustomed environment and in their own institutions. The wonderful interest that has been engendered in these Congresses in Chicago, Philadelphia, and New York on the part of American surgeons will be greatly heightened when they have the opportunity to stand shoulder to shoulder with their English and Continental conférers and observe the London clinical methods. In a few years this idea of holding a clinical meeting has revolutionized the conduct of medical societies in America, and it now remains to be demonstrated whether or not the same idea will meet with similar approval by the surgeons of England.

During the days of the Congress the clinics by eminent London surgeons will be observed by many visitors from America, Canada, the Continent, and the Provinces. At the evening sessions the scene will be changed, when the celebrated surgeons of the Continent, America, Canada, and the Provinces will reciprocate by furnishing the scientific entertainment to the members of the Congress and to the London surgeons, delivering messages on the live surgical questions of the day.

London is a great post-graduate center in medical instruction and training, and no doubt many of the younger visiting surgeons upon discovering the advantages to be gained by attending the London clinics will take this occasion to make arrangements for more formal and prolonged courses, either in the immediate future or later.

The headquarters of the Congress are ideal. The embankment suites of entertainment halls of the capacious Hotels Cecil and Savoy, located side by side in the hospital center of London, have been secured for the registration rooms, exhibition halls, and evening meeting rooms. These great hostelries, with their combined capacity for more than fifteen hundred guests, are located within a stone's throw of many of the other famous hotels of London.

Reorganization of the Medical School of Johns Hopkins University.

Delivery was made on July 6 at Baltimore of securities valued at $1,500,000 presented by the General Education Board to the Medical School of Johns Hopkins University. This gift is to be known as the William H. Welch Endowment for Clinical Education and Research.

The transfer of the principal of this fund to Johns Hopkins University signifies that an important and novel feature relating to the gift will have become an accomplished fact, namely, that the organization of the Medical School should be so arranged that the entire income from this fund could be utilized for the support of full-time teaching and research departments of Medicine, Surgery, and Pediatrics, or diseases of children.

The express proposal made by the trustees of the Johns Hopkins University was that in reorganizing these three departments, professors and their assistants should hold their posts on the condition that they become salaried university officials, and that they accept personally no fees whatever for any medical or surgical services which they might render.

The hospital wards and out-patient departments are to be under the control of the university medical or surgical teachers, but over and above their work in the public wards, the teachers are to be free to render any service required in the interest of humanity and science. They are to be free to see any patient they desire to see.

Patients, however, of the usual private patient type, will pay a reasonable fee to the University, rather than to the professors personally. The time and the energy of the professors are to be fully protected, not only because their salary eliminates financial interest on their part, but because they are themselves to become sole judges as to whether or not particular cases shall or shall not command their personal attention.

In order that the time and energy of the professors thus safeguarded might be properly utilized under favorable conditions, the endowment was made large enough to provide adequate salaries to attract the ablest professors and also to provide them with assistants, well-equipped laboratories, books, and other necessary facilities.

John Hopkins will become the first medical school to be placed upon the full-time basis in all departments. A grant of $750,000 has been made to Washington University, St. Louis, and of $500,000 to the Medical School of Yale University, upon an understanding that they also reorganize their work so as to put their clinical teaching upon a full-time basis.

PERSONAL AND GENERAL ITEMS.

Dr. John F. Lovell, (B. U. S. M. 1908) has located at Sweet Grass, Montana.

Dr. Harold E. Diehl, class of 1911 B. U. S. M., was married on June 10, to Miss Helene Taylor, at the home of Drs. Arthur H. and Barbara Taylor Ring in Arlington Heights, Mass.

Dr. J. P. Sutherland sailed from Boston on the "Cincinnati" on July 7 for a short vacation in England, after which he will attend the International Congress of Homœopathy at the Hague, August 6 to 8, returning to Boston by way of Liverpool on August 17 on the "Franconia."

Dr. Dana F. Downing will be away from his office in Roxbury, Mass., until Sept. 1.

Mr. Ray Washburn Spalding, of the 1913-14 Freshman class of Boston University School of Medicine, has accepted appointment to the principalship of St. Andrew's School, Barrington, Rhode Island. Mr. Spalding took his A.B. degree on June 3rd.

Dr. George R. Southwick, after attending the sessions of the American Institute of Homœopathy at Atlantic City, went to Rochester, Minnesota, to observe the methods of the Mayo brothers, surgeons, for about ten days before returning to Boston.

Dr. and Mrs. Horace Packard sailed from Boston on the "Amerika," on June 30 for England, to remain away until some time in October.

Dr. George D. Bliss and brother left Boston on the Cunarder "Franconia" on July 7 for a summer in Europe.

During the months of July, August and September Dr. B. C. Woodbury, Jr., of Portsmouth, will conduct an office at York Harbor, Maine.

Dr. Mary E. Mosher of Roxbury District, Boston, was elected 2nd Vice-President of the American Institute of Homœopathy at its recent meeting at Atlantic City.

President Murlin of Boston University sailed for Europe on June 30, on the "Cymric."

UNITED STATES CIVIL SERVICE EXAMINATION.

EXPERT ON SANITATION, MALE AND FEMALE ($2,800).

August 10, 1914.

The United States Civil Service Commission announces an open competitive examination for expert on sanitation, for both men and women. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in the Children's Bureau Department of Labor, Washington, D. C., at a salary of $2.800 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The duties of the position will be to act as adviser of the Bureau in matters requiring knowledge of hygiene and in coöperation with other experts to conduct investigations into dangerous and injurious occupations, the social factors responsible for high infant mortality, and other matters involving health.

Competitors will not be assembled for examination, but will be rated on the following subjects, which will have the relative weights indicated.

Subjects.	Weights.
1. Education	40
2. Experience	40
3. Publication or thesis	20
Total	100

Graduation from a medical school of recognized standing; and at least three years' specialization in the hygiene and diseases of childhood, or three years' experience in sanitary inspection work, are prerequisites for consideration for this position.

Under the third subject the applicant may submit publications on matters pertaining to hygiene or a thesis on some phase of child hygiene, or both.

Statements as to education and experience are accepted, subject to verification.

Applicants must have reached their twenty-fifth, but not their fiftieth birthday on the date of the examination.

Under an act of Congress, applicants for this examination must have been actually domiciled in the State or Territory in which they reside for at least one year previous to the date of examination.

This examination is open to all persons who are citizens of the United States and who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply for Form 304, and special form, stating the title of the examination for which the forms are desired, to the United States Civil Service Commission, Washingon, D. C.; the Secretary of the United States Civil Service Board, Post Office, Boston, Mass.; Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; Customhouse, New York, N. Y.; New Orleans, La.; Honolulu, Hawaii; Old Customhouse, St. Louis, Mo.; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed, excluding the medical certificate, and filed with the Commission at Washington, with the material required, prior to the hour of closing business on August 10, 1914. The exact title of the examination as given at the head of this announcement should be stated in the application form.

WARNING AGAINST A PRESCRIPTION FRAUD.

Washington, D. C., The Department of Agriculture, under the Food Drugs Act has recently been investigating a new trick of certain patent medicine and proprietary medicine vendors which it is believed is deceiving a large number of people into spending money for patent medicines under the impression that they are getting regular physicians' prescriptions for nothing.

In a number of publications the Department finds advertisements are appearing which state that the man or woman whose name is attached was saved from death from one of a number of serious diseases through some wonderful prescription given to him or her by a regular physician of unusual skill who will not allow his name to be used because of medical ethics. The advertisement states that the writer feels it to be a duty to communicate this invaluable recipe to humanity in order to save them from similar ills. The offer is then made to supply this prescription without charge to any one who will address a post card to the advertiser. People who do not stop to wonder who is to pay for the advertisement and the return postage and writing of the prescription are caught by this fraud and ask for the prescription. In due course a regular prescription is returned. This contains a number of ordinary ingredients and then under a technical name will call for a large proportion of some patent medicine or proprietary drug. The recipient takes this to a drug store to be filled and the druggist finds that he has to buy some of this patent preparation in order to fill it. He, therefore, has to order a large package or bottle of it and to make a profit must charge the customer a good, stiff price for filling the prescription. The customer, of course, gets what is in effect simply a patent medicine which, save that it bears a druggist's label and a prescription number, is the same as a patent medicine sold under the maker's own label and in the maker's own bottle.

The government can not reach these people under either the Food and Drugs Act or the Postal Laws, because the scheme is so planned as to evade Government laws. The deception and misrepresentation appear in advertisements, circulars, letters, etc., separate from the package and the medicines are seldom sent through the mails. The best the Department can do, therefore, is to warn the people to be particularly suspicious of those who spend money for advertising space, postage, and letter writing, seemingly out of their love for humanity. In all of these cases there is a profit-making scheme back of the seeming philanthropy.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX AUGUST, 1914 No. 8

ORIGINAL COMMUNICATIONS.

THE RELATION OF DRUGS TO IMMUNITY.*

With Special Reference to the Influence of Certain Drugs in Stimulating the Formation of Agglutinins and Complement-Binding Substances in the Human Body.

From the Pharmacological Laboratory of the Evans Memorial, Boston.

By S. B. Hooker, A.B., Ch.B., M.D., Boston, Mass.

We have long known that the human body is capable of establishing a tolerance for many chemical substances. It is but recently, however, that the explanation of this fact has been attempted by means of laboratory experiments, and there exist, even now, but comparatively few records of observations concerning this highly important question.

Faust[1] demonstrated that the morphin addict develops an increased capacity to destroy the drug. Whereas about 70 per cent of the amount of a single injection could be recovered through the usual channels of excretion, after tolerance had been established to doses lethal to the unaccustomed subject no morphin whatever may appear in the excretions. Analysis of the organs of a tolerant animal showed only very small amounts of the alkaloid; hence the logical conclusion is that the organism had acquired the power to destroy far greater quantities of morphin than it originally possessed.†

Dixon and Lee[4], from their experiments on rabbits to determine tolerance to nicotin, state that clear evidence of a definite tolerance was obtained in 80 per cent of the animals, and the facts elicited point strongly to the conclusion that the destruction of nicotin is brought about by a ferment. Clark[5], after studying the

* Read before the Bureau of Homœopathy at the Seventieth Annual Session of the American Institute of Homœopathy, Atlantic City, June, 1914.

† It must also be stated that the organism also develops a greatly diminished cellular sensitiveness to the action of morphin[3].

destruction of alkaloids by the body tissues, concludes that in the rabbit and in the frog, both natural and acquired tolerance of atropin depend probably upon an increased power to destroy the drug, and possibly upon increased rapidity of excretion as well. The power of the liver to destroy atropin is due to a soluble body resembling a ferment in its action. It is worthy of note that none of the tissues investigated in the cat, the rat and the dog had any power to destroy atropin.

As a result of administering repeated and gradually increasing doses of so simple a substance as sodium citrate, Robertson and Burnett[6] found that rabbits acquire such a pronounced degree of tolerance for the drug that a dose which normally causes extremely severe symptoms of intoxication, or even death, causes either very slight or else no symptoms of intoxication. *

These references† are cited to give a definite experimental basis for the fact that animals may become habituated to poisonous drugs. From the clinical standpoint I will mention only arsenic, tobacco, cocain, cathartics, morphin and other hypnotics, as drugs to which the human body is capable of developing a resistance.

Details of the mechanisms by which tolerance is secured probably differ somewhat according to the agents used, just as immunity to *B. tetani* is predominantly antitoxic in character, whereas for protection against the pneumococcus the body relies chiefly upon its opsonins, and phagocytosis[7]. As therapeutists, our interest should center in the question whether or not drugs provoke in the human organism the development of substances protective against disease. At the outset of my experimental work I postulated that, excepting the very few parasiticidal remedies, *all drugs if they have a curative effect upon medically curable diseases, have that effect by virtue of their properties of stimulating cell protoplasm to higher functional resistance.* Otherwise stated, drugs have no primary curative action *per ses;* their efficiency lies in the excitation of protoplasm which they produce, and the consequent liberation of those reactions which in turn arouse defensive processes for the disposal of noxious material. This postulate, when exalted to modern immunological terminology, at once suggests the question: is it possible that drugs may serve as antigens?

An antigen is defined as a substance, which, when introduced into the body, usually by the parenteral route, gives rise to the formation of antibodies more or less specifically related to the identical antigen used. It is logically assumed that for a reaction to take place there must be chemical fixation of the antigen by the

* The fact that some poisons, alcohol for example, are rendered innocuous by oxidation or reduced by chemical reactions of varying degrees of complexity, is not an argument against antibody formation, for who shall say that this very oxidation or reduction is not the true and simple expression of the antigen-antibody reaction.

† Numerous other references are given by Dixon[4] and Lee, and Clark[5].

body cells. Bacteria and bacterial extracts, erythrocytes, serum, milk, etc., are familiar examples of antigens.

It has been stated by advanced students and workers in serology that most inorganic or organic substances with definite chemical structure are not antigens, because their introduction into the body is not followed by the formation of antagonistic substances in the body[8], for it is claimed that they are not taken up by the body in consequence of a special chemical affinity, but merely in virtue of the existence of physical influences. Simon[9], dominated by Ehrlich, writes that chemical interaction between true antigen and cell receptor (protoplasm) takes place because the bodies in question are structurally closely allied to the foodstuffs.*

Although respecting deeply the master minds in this science, I believe that there is current in the matter of obeisance to eminent authorities in immunology a deal of antiquarian idolatry, and in view of the following largely experiential evidence which I have assembled, I have ventured, I think with justification, to dispute this dictum concerning the lack of antigenous properties in drugs.

The well-known experiments with ricin, abrin, crotin, phallin and extracts of pollen[10], need only be mentioned as conclusive examples that these phytoalbumoses can cause the elaboration of various antibodies. In a recent communication[11], Ford and Rockwood cite confirmatory experiments showing that the subcutaneous introduction of graduated doses of *aqueous* extracts of *Amanita phalloides* into animals causes the production of an antiserum with antitoxic and marked antihæmolytic properties. Wheeler[12] and Neatby[12], of London, state that phosphorus increases the human opsonic index to the tubercle bacillus; Watters[12], of Boston, and Burrett[12], of Ann Arbor, claim that calcium sulphide and echinacea enhance opsonic activity toward staphylococci. Wesselhœft[13], of Boston, has demonstrated that quinin does not show *in vitro* a sufficiently rapid parasiticidal action against malarial plasmodia to explain its efficacy *in vivo*, and the strong probability is that quinin in malaria acts by stimulating the body cells to produce their own protective substances, antitoxins and parasitolysins. Mellon[14], of Ann Arbor, cites experiments which indicate that baptisia influences favorably the production of antityphoid agglutinins. He also states that he has been successful in raising the opsonic index to pneumococci by administering veratrum viride to human subjects. This work on agglutinins has been partially confirmed by Wheeler[45].

Krohl[15] expresses the belief that mercury, which he admin-

* If this *theory* be considered essential, it is profitable to recall that one most reasonable *theory* of the toxic action of arsenic, is that this element, having identical valencies and falling in the same periodic group with phosphorus, replaces the phosphorus in the nucleo-proteids. This would be a positive example of a drug being bound by cell protoplasm.

isters subcutaneously in the form of the benzoate, raises the resistance of the body towards many streptococci, and is prophylactic against erysipelas, scarlet fever, puerperal fever, etc. He attributes the effect to its sterilizing action. However, this assumption seems questionable when we consider that his dose of .01 gm., even if distributed *only* in the blood, would be in a resultant dilution of 1 : 500,000, and then largely in the form of the feebly toxic mercury albuminate.

The action of several drugs upon phagocytosis has been reviewed by Arkin[16]. He finds that those drugs, (chloral, morphin, ether, etc.) which have an inhibitory action upon oxidative processes, all depress phagocytosis. Contrarily, mercuric and other chlorids, colloidal metals, strychnin, arsenic *et alias,* stimulate phagocytosis *in vitro et in vivo.* The drugs may interact with the specific antibody, or may stimulate the formation of more antibody. Yamanouchi[17] recently published his work on phagocytic stimulation with "mycolysin," sodium nucleinate and colloidal silver. His results indicate that these substances have no direct action upon bacteria, but that they do increase the opsonic properties of the serum, and stimulate both phagocytosis and leukocytosis. The highest coefficients were obtained with mycolysin.

Lake, Osborne and Wells[18], in addition to an account of their own work on hordein and gliadin, give numerous references to observations on biological reactions with extracts of vegetable substances, similar to the tinctures of many drugs, showing that such extracts are capable of acting as antigens which will react with, and incite the formation of, antibodies demonstrable by precipitin, conglutination, complement fixation and anaphylaxis reactions. Ballner[19] reports that pea antiserum showed marked specificity, reacting with pea extract in 1 :40,000 dilution, and with lentil extract only in dilution of 1 : 50. Wendelstadt and Fellner[20] also found that simple saline extracts of peas and beans gave positive reactions of measurable degrees of specificity. Antiserum for extracts of *Vicia faba* reacted with similar extracts of *Vicia sativa* and *Pisum sativum,* but not with *Phaseolus vulgaris* or *Phaseolus multiflorus.* The reactions were predominantly stronger with homologous than heterologous extracts. Lusini[21] reports the production of specific precipitins for *Digitalis purpurea.**

---

* The investigators cited above, Lake, Osborne and Wells, claim to have confirmed the observations of Magnus[22]. "Magnus used extracts of plant tissues, and found by carefully conducted precipitin tests that *the degree of immunization determines the range of reaction.* For example, when an animal is immunized but a short time with extracts of the seeds of one of the cereals, it yields a serum which precipitates only the extract of the same species; later in the course of immunization, precipitins appear for extracts of closely related species, and progressively a wider and wider list of cereals reacts, until finally precipitates are obtained with all the *Gramineæ.* Nevertheless, even with this extreme degree of immunity, the serum gave no reaction with extracts derived from plants not belonging to the *Gramineæ.*" These observations should be of extreme significance in connection with the study of drug-immunization.

Along lines of slightly more intimate connection with my subject, Silvestri[23] states that he has encountered a number of cases in which anaphylaxis must be assumed in order to explain the disturbances resulting from the taking of certain drugs, among which are atropin, iodin, iodoform, phenol, pyramidon, morphin, strychnin and mercury. In his opinion, true anaphylaxis and idiosyncrasy to drugs are of the same nature. In each case the sensitizing material finds already present in the organism some substance with which it unites to form a rapidly acting and highly virulent toxin. Richet[24] observed that dogs chloroformed for the first time never present leukocytosis, either then or afterward. About three weeks afteward, following a second chloroform anæsthesia, they exhibited a marked leukocytosis. Richet is of the opinion that this anaphylactic phenomenon is due to the albumins produced by the action of the chloroform upon the liver and kidneys, rather than to the drug itself. This hypothesis may be the key to the explanation of various drug-idiosyncrasies. Dethleffsen[25] reports a case which exhibited anaphylactic phenomena following injections of fibrolysin—a double compound of sodium salicylate and allyl sulpho-carbamid. These reports on anaphylaxis are strictly germane in their general scope to the question of the possibility that drugs may produce antibodies or protective substances, for since the work of Abderhalden on "protective ferments" and of Vaughan on "antiferments," the theory that anaphylaxis depends upon a specific ferment, developing as the result of the parenteral introduction into the body of a foreign protein, has gained wide acceptance. Hence, if drugs are capable of inducing anaphylactic phenomena, either directly or indirectly, it is logical to presume that they are capable of inducing the elaboration of "ferments" or "antibodies." The hypothesis that, for production of antiferments, the material *must* enter the body by the parenteral route* is rendered untenable by the experiments of Uhlenhuth[26], Michaelis and Oppenheimer[27], who found that precipitins were formed following repeated introductions of egg-white or serum into the *stomachs* of rabbits[28].

In a recent article, Perkins[32] states that an animal rendered tolerant of morphin is capable of withstanding a supralethal dose of codein or heroin, and that the serum of the immune animal is capable of protecting a normal animal, when given immediately subsequent to a lethal dose of the drug. Unfortunately his statements concerning experiments savor overmuch of ambiguity to allow of unreserved acceptance, and he makes no reference to the contrary findings of Morgenroth[46], as cited by Arrhenius[47].

---

* In this connection the investigations of Solis-Cohen[29] on the efficacy of tuberculin when administered orally have a prominent bearing. Also Runnels[30] has experimented with the use of vaccines by mouth, and an extensive bibliography on "Autotherapy" is given by Duncan[31].

Vaughan[33], having done an immense amount of work upon the protein poison, has elaborated this conception of ferment action in its relation to disease. Briefly, he concludes that bacteria are able to maintain themselves in the body by virtue of their ability to split up and feed upon the animal proteins, while the body protects itself by virtue of its ability to accomplish parenteral digestion of the bacteria. Thus is a large part of Ehrlich's theory condensed into the familiar term—proteolytic cleavage. The practical bearing is that cells can be trained to pour out a special ferment to digest a specific body. To admit this probability and then to deny the equally logical assumption that a similar process is concerned with the parenteral disposal of the animal and vegetable proteins found in tinctures, or of the albuminates which most salts and metals form, would seem highly inconsistent.

Finally, mention must be made of the conclusions of that prolific author, Sajous[34], that "certain alteratives can cause the blood to become bacteriolytic and antitoxic by provoking the formation and accumulation therein of more or less antitoxin."

Without further multiplication of examples, we may, I think, admit the rationality of the presumption that *inasmuch as toleration or immunity may be established to drugs as well as to bacterial toxins, and inasmuch as the phases of these immunizations exhibit such patent similitude in each case, it is probable that the fundamental biochemical phenomena may be of closely related natures.*

The foregoing review of the literature has been made with the purpose of showing that my dubiety regarding the prevailing quasi-authoritative conception of antigenous substances is not altogether unfounded. Moreover, merely that we have not yet found antibodies to those drugs to which the body can establish tolerance, is wholly insufficient evidence of their non-existence. I think it likely that failure to find such antibodies is attributable to lapse of experimentation in testing for their presence only in relation to the identical antigen used; whereas I have thought it more practicable, and capable of subserving two ends, to make tests with distinctly separate antigens, *viz.*: certain bacteria nd certain drugs, which are, however, reasonably homologous and specific when we parallel their respective pathogeneses.

Laboratory Research.

The experimental work which I shall now recount has been conducted by me during the past year. The focal point of my laboratory investigation has been the ascertainment of the influence of drugs in stimulating the human organism to elaborate substances protective against disease—*the problem which I estimate to be unequivocally the most important of the many which confront the*

internists of today. The infectious diseases have been the chief objects of investigation, not necessarily that they are of greater importance, but rather for the reason that their pathology and therapy are more susceptible of laboratory demonstration. Briefly, the method of procedure has been as follows: to groups of human subjects have been administered for certain periods, small but gradually increasing doses of drugs. At intervals, from each individual a specimen of blood has been taken, and qualitative as well as quantitative studies made in regard to the presence of agglutinins and complement-fixing bodies in the blood-serum. Rigid control tests have been imposed and doubtful results have been discarded, so that the work should have at least the merit of conclusiveness within its limited scope.

Subjects. The subjects—thirty-two in number, of which twenty-three were males—upon which experiments have been carried out, were volunteers, students from Boston University School of Medicine and internes from the Massachusetts Homœopathic Hospital. Histories, with special reference to the possibility of previous typhoidal or dysenteric attacks or of prophylactic inoculations, were taken, physical examinations and uranalyses made on most of the subjects, in order to obtain such as fall within "normal" limits as regards health. They were on the ordinary mixed diet. The faithful and intelligent coöperation of these men and women has alone made this investigation possible, and it is a pleasure here to express my genuine appreciation of their services.

Drugs. The inorganic chemicals used, phosphoric acid, arsenous anhydrid and mercuric chlorid, were secured in the pure state from E. Merck & Co., and prepared under the personal supervision of Dr. J. Wilkinson Clapp, of the firm, Otis Clapp & Sons. The preparation of the tablets, which were used for the convenience of the subjects, was carried out with scrupulous care, in order to secure exactitude and uniformity in the matter of dosage. The same firm imported tinctures of bryonia and cantharis from C. Gruner, Leipsig; and obtained the tinctures of baptisia and hyoscyamus from Squibb & Co.

Bacteria. Cultures of *B. typhosus, B. coli communis, B. alpha* and *beta paratyphosus,* and *B. dysenteriæ,* Flexner and Shiga types, were obtained from Dr. C. A. E. Winslow, of the American Museum of Natural History, New York. That I might be doubly assured of the purity of these, and of other cultures provided by Parke, Davis & Co., several series of confirmatory fermentation tests were carried out for purposes of verification during the period of research.

For use in agglutination tests the bacteria were subcultured

daily. Eighteen to twenty-two hour growths on agar slants were washed off with sterile 0.85 per cent saline, and the emulsions filtered through sterile, hardened, fine mesh filter paper—in a specially devised apparatus which conveniently permitted daily sterilization by steam—in order to secure an emulsion free from clumps. That homogeneity of the bacterial suspensions was essential for each series of tests is obvious, and this technic was adopted because of that necessity. The suspensions were diluted to a uniform turbidity each day, comparison being made with the suspensions used on the previous day.*

The antigens used in the complement fixation reactions were prepared by shaking thick saline emulsions, of forty-eight hour growths, in a mechanical shaker for ten hours. After heating for two hours at 60 degrees C., the resulting stock antigens were kept in sterile containers at 0 degrees C., without the addition of any preservative. Although some autolysis undoubtedly took place, the antigenic properties were apparently unaffected. The antigenic dose of the hexavalent typhoid preparation was found to be 0.2 ccm. of a 1:50 dilution; of the bivalent "Flexner" and "Shiga" antigens, which were made up separately, the antigenic dose of each specimen was 0.2 ccm. of a 1:10 dilution. None of the preparations was anticomplementary or hæmolytic in amounts of 2 ccm. or less. These antigenic and anticomplementary values were ascertained by the use of serum from rabbits immunized by repeated injections of the same strains of the bacteria used as antigens.

Serum. Owing to the natural aversion of the subjects toward repeated puncture of the forearm veins, blood was taken from the lobe of the ear. The specimen was usually taken shortly before lunch, in order to avoid the occasional anticomplementary action of the serum, thought by some to be attendant upon the liberation of chyle into the circulation, which occurs for sometime after the ingestion of food. Each subject was cautioned that the use of alcohol[35] is likely to be followed by the disappearance of antibodies from the blood, and I believe that no error arose from this possible source. The blood was collected in sterile glass capsules, centrifugalized, and serum dilutions made up for the agglutination reactions. When used for complement fixation tests, the serum in each instance was heated at 55 degrees C. for thirty minutes, to destroy the native complement and to obviate the action of the nonspecific, proteotropic, anticomplementary substances described by Noguchi[36]. The usual controls, including positive and negative

* A uniform concentration of the bacterial suspension is a positive desideratum when it is necessary to observe the quantitative relationship existing between the mass of bacteria to be agglutinated and the agglutinating power of the serum. At first, I attempted the very accurate method of standardization of the suspension by actual count in the hæmocytometer chamber, but I found this procedure to be altogether too time-consuming.

sera, were set up with every series of tests. In the work upon the agglutinins, the serum was examined on three occasions prior to the administration of the drugs, and upon two occasions in the complement fixation series. This was done in order to obtain the average normal titre of the serum, for we know that there may be a daily or even hourly fluctuation of the antibody content of the blood[37]. It was because of the limited time which my subjects had at their disposal that more preliminary control tests were not done.

Agglutination Reactions. Tests for the presence of agglutinins were made by means of the hanging drop method.* In an effort to record my observations in a convenient, systematic and accurate way, I devised a series of formulæ to represent the varying degrees of agglutination. I am surprised that such a method of denotation is not in general use in connection with a reaction of such a quantitative nature. Although arbitrary in itself, it is surely equivalent or superior in accuracy and ease of application to the "estimations" of small traces of albumin in the urine, or of the varying degrees of positivity of the Wassermann reaction. Naturally, the personal element is a factor in this method of tabulation, but the average error of one person making observations from day to day should be practically negligible, and with the exception of four specimens of serum, I have made all of the observations personally, therefore adherence to this system is perfectly legitimate. The gradations depend, of course, upon the size and number of the clumps. The presence of two or three very small clumps of four to eight bacilli in a field in which the magnification is 460, if seen with reasonable regularity in at least six different fields, constitutes a "very slight tendency toward agglutination"—"V. S. T. A." Complete agglutination is designated as "A++," and the four grades between, as "a slight tendency," "tendency," "agglutination," (A), and "A+." The coefficients which I have used in the numerical evaluation of the results run as follows: 1, 2, 4, 6, 8 and 10, the 10 representing complete agglutination. By recording observations in conformity with this schema, one may be assured that results obtained at the end of a serial experiment will be consistently comparable with the results of control tests obtained at the beginning. It is patent that comparableness of results is the prime essential in this research work.

The degree of agglutination at the end of twenty-four hours has been the criterion deemed most expedient for recording the re-

* The advantage of the macroscopic (test tube) over the microscopic (hanging drop) method seems to be that "it is used in the best laboratories." Its disadvantages are that it requires more serum, the apparatus is far more bulky, it is more difficult to estimate the rapidity and the grades of agglutination, and examination for motility necessitates an additional microscopic preparation. I have used it only as an added control test.

sults of each reaction.* The other bacilli, which are closely related to the *B. typhosus*, have been studied in order to determine the degree of specificity, both qualitative and quantitative, of the agglutinins produced.

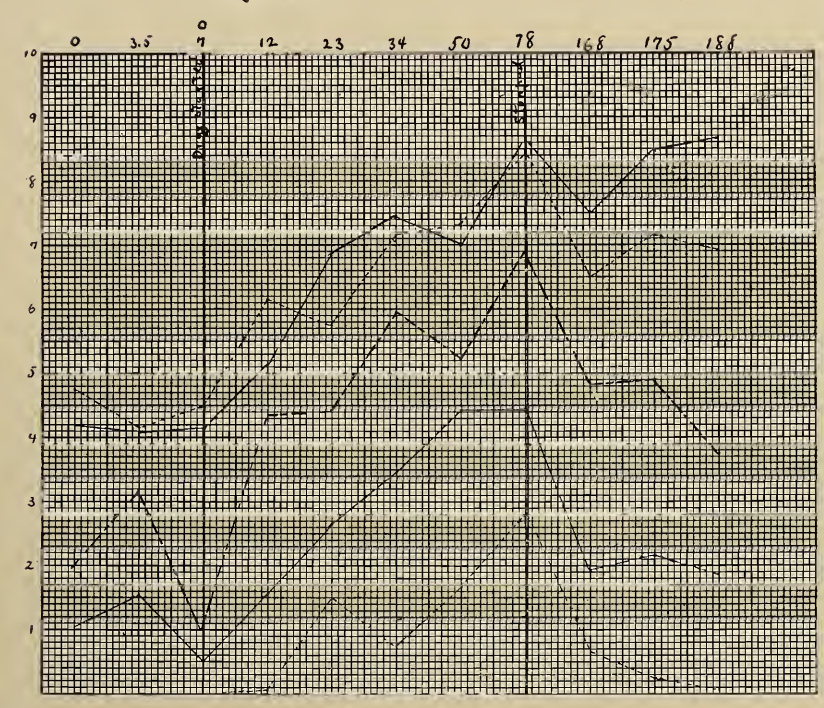
The following composite protocols and charts are compiled from the results of more than four thousand observations upon two

Group	Subject				1-2-14 Drug								Average		
Amount of Drug ;/m cc		0	0	0	.08	.8	2.	8.	20.	0	0	0			
Daily (Arsenic) mgm.		0	0	0	.00013	.013	.13			0	0	0			
Interval in days		0	3.5	7	19.	30	41	57	85.	175	182	195	Before	During	After
Dilution of Serum	Bacillus														
1-7½	Typhoid	4.19	4.08	4.13	5.13	4.99	7.45	7.00	8.67	7.50	8.50	8.67			
	Colon	4.27	5.08	4.63	7.17	7.34	8.89	7.78	10.00	9.75	8.83	9.75			
	A para	4.00	4.17	3.88	6.13	6.63	8.08	8.11	10.00	8.09	9.00	9.17			
	B para	4.21	5.08	3.38	6.63	6.96	8.57	8.00	9.11	7.17	8.34	7.13			
1-15	Typhoid	4.75	4.17	4.50	6.17	5.75	7.17	7.33	8.44	6.50	7.14	6.92			
	Colon	5.13	3.83	3.50	6.50	5.96	6.75	9.67	8.67	7.92	8.25	8.67			
	A para	4.25	3.33	3.67	4.79	5.63	6.84	7.78	8.78	6.83	8.17	8.25			
	B para	3.88	5.00	1.50	4.50	6.96	7.58	8.00	8.33	4.25	8.08	5.63			
1-30	Typhoid	2.00	3.17	1.00	4.38	4.42	5.96	5.22	6.89	4.83	4.88	3.75			
	Colon	2.00	1.84	2.00	4.25	5.38	6.42	5.67	7.33	5.75	6.04	6.33			
	A para	0.00	.84	1.00	3.13	3.17	4.38	5.33	7.33	4.75	6.67	6.29			
	B para	1.00	1.34	.50	3.25	4.75	5.38	5.67	5.67	4.75	5.67	3.29			
1-60	Typhoid	1.04	1.54	0.50	1.56	2.67	3.46	4.42	4.42	1.92	2.17	1.88			
	Colon	1.29	0.83	0.67	1.48	2.46	2.13	3.22	4.22	4.38	3.33	3.83			
	A para	0.78	0.63	0.67	1.25	1.67	1.75	2.75	5.33	3.67	5.00	4.08			
	B para	1.13	1.29	0.17	1.08	2.92	3.67	1.78	3.89	4.25	3.75	1.58			
1-150	Typhoid	0.00	0.08	0.00	0.08	1.50	0.75	1.67	2.83	0.67	0.25	0.08			
	Colon	0.00	0.00	0.00	0.06	1.33	0.79	2.22	2.50	0.67	0.25	0.50			
	A para	0.00	0.00	0.00	0.44	1.31	0.58	2.33	3.11	1.33	1.46	1.58			
	B para	0.00	0.00	0.00	0.19	1.17	2.04	1.11	2.56	1.29	0.92	0.44			
Controls	Typhoid	0	0	0	0	0	0	0	0	0	0	0			
	Colon	0	0	0	0	0	0	0	0	0	0	0			
	A para	0	0	0	0	0	0	0	0	0	0	0			
	B para	0	0	0	0	0	0	0	0	0	0	0			

* At the inception of these experiments I made observations at set intervals, but the stress of other obligatory work rendered the pursuance of that plan impossible.

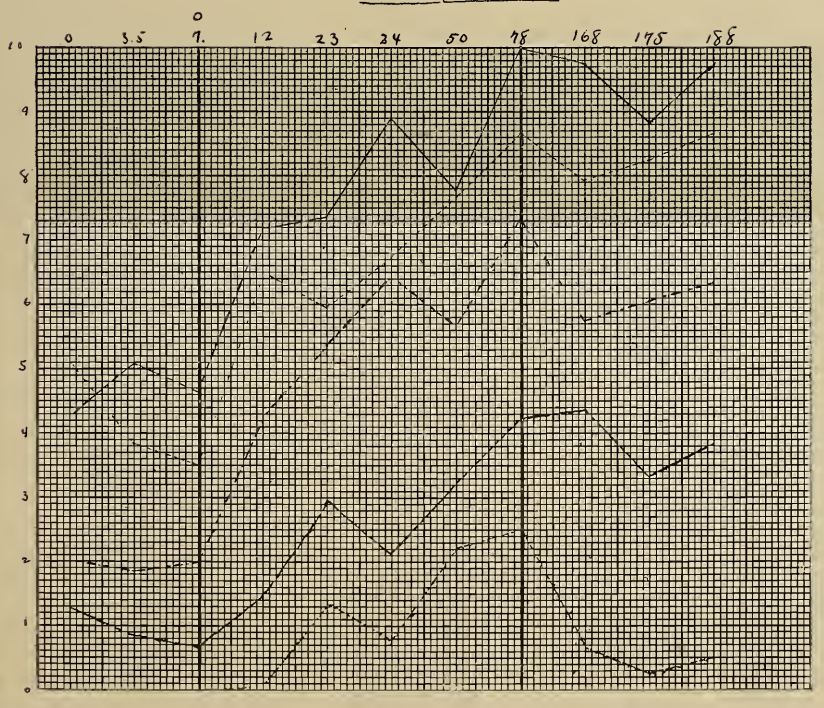
From Composite Protocol

B. Typhosus



From Composite Protocol

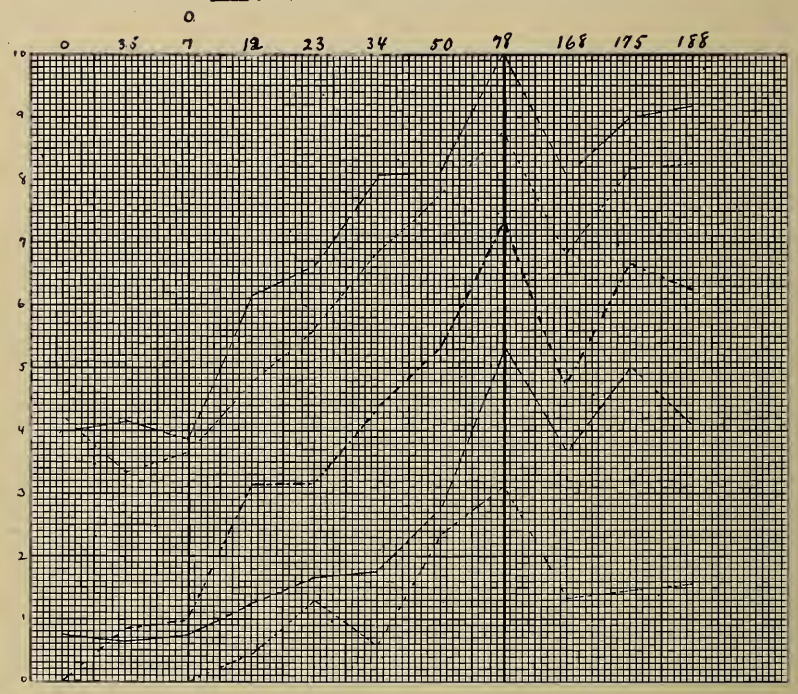
B. coli communis



——— = 1 : 7.5 dilution of serum
- - - - - - - - = 1 : 15. " " "
— · — · — · — = 1 : 30. " " "
——— = 1 : 90 " " "
- - - - - - - - = 1 : 150 " " "

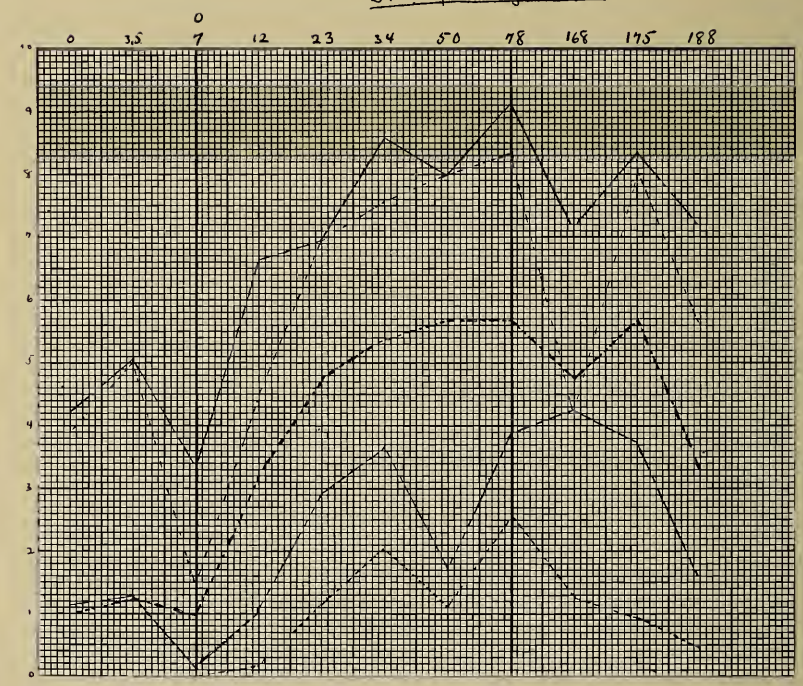
From Composite Protocol

B. x paratyphosus



From Composite Protocol.

B. 3 paratyphosus



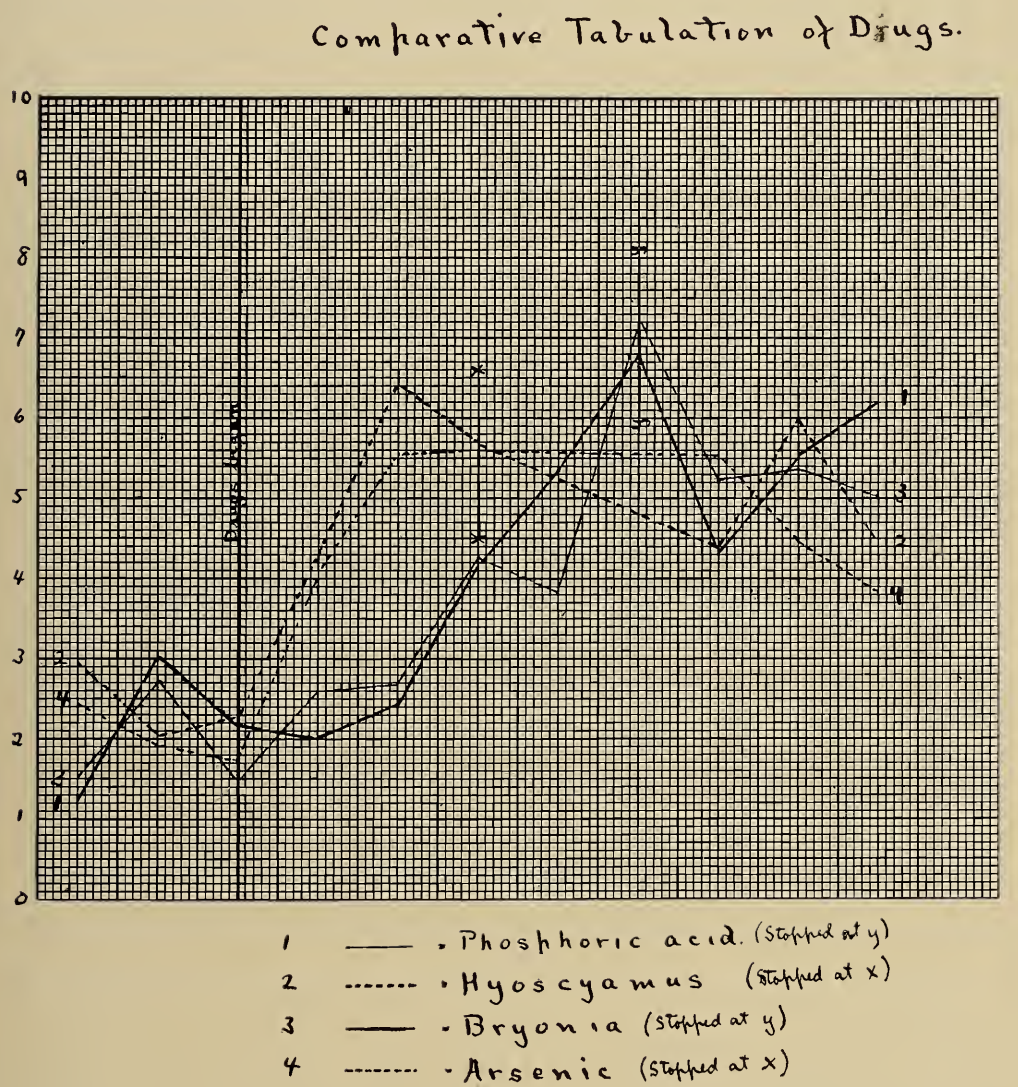
Abscissa = Number of days

Ordinate = Degree of agglutination

——— = 1 : 7.5 dilution of serum.
- - - - - - = 1 : 15 " "
— — — = 1 : 30 " "
——— = 1 : 60 " "
- - - - - - = 1 : 150 " "

thousand four hundred and forty-eight separate hanging drop preparations which I have set up. Several hundred confirmatory macroscopic tests, and about two hundred tests upon the sera of normal persons have also been carried to completion.

Serological workers are fairly well agreed that agglutinins are probably not true antibodies in the strict sense of bearing a directly inimical relation to the antigen. Therefore, although their presence



in the serum usually does indicate heightened resistance through the agency of other antibodies, the presence of agglutinins does not mean greater resistivity in virtue of themselves. Furthermore, it has been conclusively demonstrated that agglutinins and bactericidins in anti-typhoid sera do not always run parallel courses. In a series of subjects observed to ascertain the duration of antibodies in the blood after antityphoid inoculation, Wollstein[38] found that

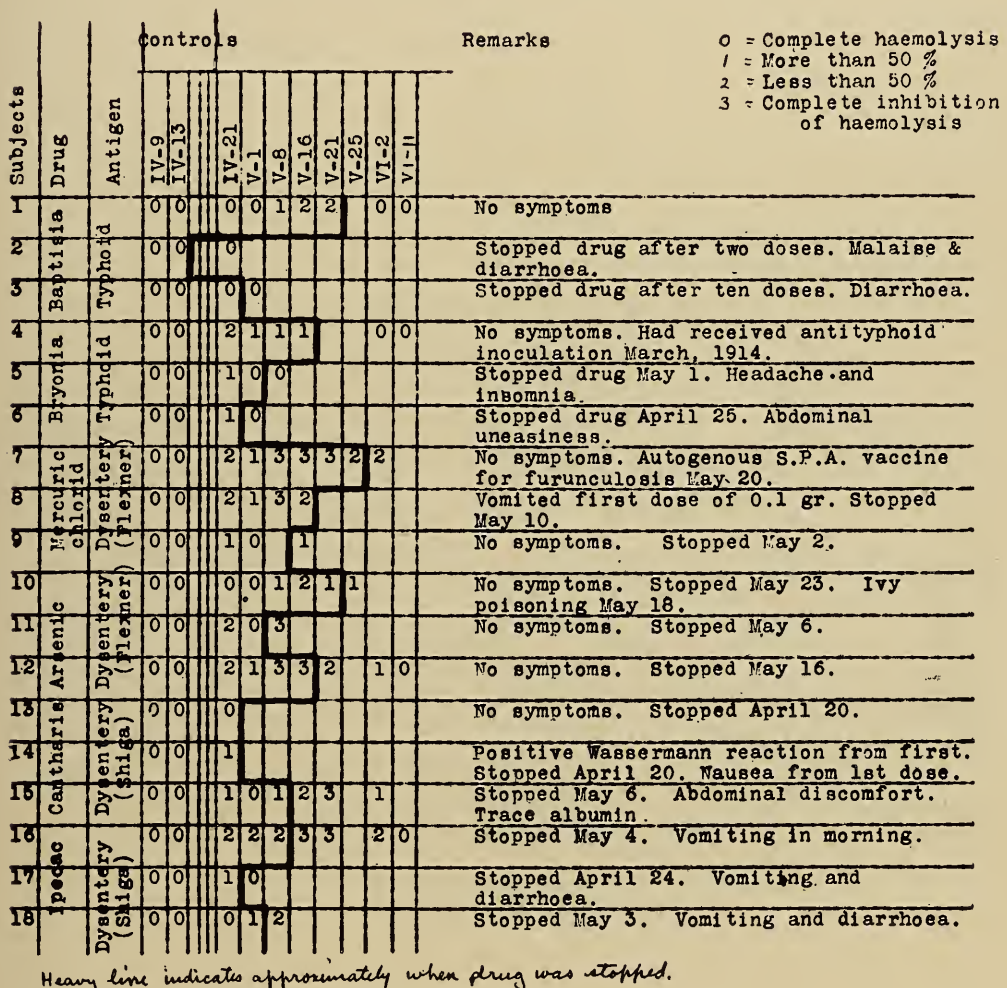
the bacillicidal activity was almost invariably far in excess of the agglutinating power—in one case, fifteen thousand times as great. Since it seems that immunity to typhoid fever depends upon the existence of bacteriolytic antibodies in the blood, it follows, that in judging whether or not a given serum is immune to the typhoid bacillus, tests for bacteriolysins or bactericidins* are of the greatest importance. For this reason, then, I arranged another series of fresh subjects in order to demonstrate that drugs may possibly stimulate the body to produce specific bacteriolysins, and thus afford a definite basis for asserting that drugs are undeniably of service as immunizing agents. The complement fixation method was chosen because it is definitely qualitative, although perhaps not giving such delicately quantitative results, as does the more complex plating method of Stern and Korte[39]. Of the subject's serum .1 ccm. was used, and the usual technic was followed, except that *two* units of complement were used in each instance, as well as two units of hæmolytic amboceptor. The excess of complement obviates the error arising from the non-specific absorption of complement by many *normal* sera. Moreover, it is not universally recognized that complement depreciates in strength even during the comparatively brief incubation of the reacting solutions at 37 degrees C. Thus, if exactly one unit of complement is used, and this deteriorates during the incubation periods, there will of necessity be some inhibition of hæmolysis, even though no true deviation of complement may have occurred. Contrarily, with a slight excess of complement, such as probably is the case when two units are used, there may be complete hæmolysis, even though there has been a slight degree of complement fixation. Such a serum test would be called negative, even though there might be a measurable amount of specific amboceptor present. However, in this series, the experimental error lies on the safe side, in that each reading was presumably lower than was the actual serum content of bacteriolytic amboceptor. In the sera of subjects 7, 8 and 12 there was found a natural antisheep hæmolysin. We may presume that the antibody content was still further underestimated because of this disturbing factor, since I did not allow the hæmolytic amboceptor to act upon the sheep's erythrocytes prior to the second stage of the reaction. Abstracts from the protocols of my experiments with the complement fixation test are given on the following pages.

---

* For the sake of clarity of comprehension it may be well to suggest the probability that the bacteriolysins or bactericidins may be of a nature similar to that of the "antiferments" of Vaughan. Indeed there is much evidence in support of the hypothesis that the different precipitin, agglutinin, complement fixation and anaphylaxis reactions are but merely different methods of demonstrating the presence of one and the same specific immune body. However, observations have been made which are not in strict accord with this simple interpretation, so that it cannot be considered as established.

Comment.

It is plainly evident that the results are highly suggestive. Nevertheless, in view of our present fragmentary knowledge of the science of immunology, I cannot emphasize too forcefully my



Subjects	Drug	Antigen	Controls IV-9	IV-13	IV-21	V-1	V-8	V-16	V-21	V-25	VI-2	VI-11	Remarks
1			0	0	0	0	1	2	2		0	0	No symptoms
2	Baptisia	Typhoid	0	0	0								Stopped drug after two doses. Malaise & diarrhoea.
3			0	0	0	0							Stopped drug after ten doses. Diarrhoea.
4			0	0	2	1	1	1			0	0	No symptoms. Had received antityphoid inoculation March, 1914.
5	Bryonia	Typhoid	0	0	1	0	0						Stopped drug May 1. Headache and insomnia.
6			0	0	1	0							Stopped drug April 25. Abdominal uneasiness.
7			0	0	2	1	3	3	3	2	2		No symptoms. Autogenous S.P.A. vaccine for furunculosis May 20.
8	Mercuric chloid	Dysentery (Flexner)	0	0	2	1	3	2					Vomited first dose of 0.1 gr. Stopped May 10.
9			0	0	1	0		1					No symptoms. Stopped May 2.
10			0	0	0	0	1	2	1	1			No symptoms. Stopped May 23. Ivy poisoning May 18.
11			0	0	2	0	3						No symptoms. Stopped May 6.
12	Arsenic	Dysentery (Flexner)	0	0	2	1	3	3	2		1	0	No symptoms. Stopped May 16.
13			0	0	0								No symptoms. Stopped April 20.
14			0	0	1								Positive Wassermann reaction from first. Stopped April 20. Nausea from 1st dose.
15	Cantharis	Dysentery (Shiga)	0	0	1	0	1	2	3		1		Stopped May 6. Abdominal discomfort. Trace albumin.
16			0	0	2	2	2	3	3		2	0	Stopped May 4. Vomiting in morning.
17	Ipecac		0	0	1	0							Stopped April 24. Vomiting and diarrhoea.
18		Dysentery (Shiga)	0	0	0	1	2						Stopped May 3. Vomiting and diarrhoea.

0 = Complete haemolysis
1 = More than 50 %
2 = Less than 50 %
3 = Complete inhibition of haemolysis

Heavy line indicates approximately when drug was stopped.

conviction that positive assertions are distinctly without justification. Scrutiny of the variously tabulated findings shows that the rise in agglutinin content of the sera probably should be ascribed to the phenomenon of group agglutination.* That this should

* By "group agglutination" I refer to the ability of a certain antibacterial serum to cause the agglutination of certain microorganisms which nosologically, morphologically, biologically and often pathogenetically are closely related to the homologous bacterium. Agglutination is most marked with the homologous strain, and the degree to which the heterologous bacteria are agglutinated is somewhat of an index of the proximity of the relationship of the latter to the former. For example, anti*typhoid* serum possesses a greater power to cause agglutination of *colon* bacilli than does normal serum.

be the case is naturally to be expected, when we consider the distinctly heterologous *original chemical* natures of the drugs and bacteria used. Probably, had the complete pathogenesis of the *strain* of bacterium and likewise of the individual drug employed, shown marked intimacy of relationship, *i. e.*, had there been a conspicuous parallelism of "bacterial" and drug symptoma-

DOSAGE TABLE

Subjects	Drugs	Apr.13-20	Apr.21-May 1	May 1-8	May 8-15	May 15-23	23-27
1	Baptisia	1.ccm	10 cc	14 cc	20 cc	20 cc May15 30 cc " 22	
2	"	1.5 ccm in 1½ days					
3	"	1 ccm					
4	Bryonia	1 ccm	10 cc	16 cc	30 cc on May 15		
5	"	1 ccm	10 cc				
6	"	1 ccm	1 cc till Apr. 25				
7	Mercuric chlorid	0.002 gr.	0.02 gr.	0.08 gr.	0.2 gr	0.2 gr till May 21	.1 gr May 22,24,26,27
8	"	0.002 gr.	0.02 gr.	0.02 gr.	0.002 gr.	0.1 gr. on May 16	
9	"	0.002 gr.	0.02 gr.	0.08 gr.			
10	Arsenous anhydrid	0.002 gr.	0.02 gr.	0.08 gr.	0.2 gr.	0.2 gr.	
11	"	0.002 gr till 17					
12	"	0.002 gr.	0.02 gr	0.08 gr	0.2 gr.		
13	Cantharides	0.1 ccm					
14	"	(.05cc 13) 0.02 cc					
15	"	0.1 ccm	0.6 cc	1 cc till May 6			
16	Ipecacuanha	1.0 ccm	10 cc till 23 Then 5 cc	5 cc till May 4			
17	"	1.0 ccm	3 cc till Apr. 24				
18	"	1.0 ccm	10 cc till 23 Then 3 cc except 27-30	3 cc till May 3			

tology, the presence of *specific* agglutinins might have been demonstrated.*

That there exists some degree of specificity is manifested by the fact that the higher dilutions of the serum of a subject taking arsenic caused marked agglutination of *B dysenteriæ* (Flexner type), while they were without effect upon pneumococci; the reverse being true of the serum of a subject taking bryonia. Confirmation of this relationship is afforded by the additional fact

* It should be remarked that any antibodies which may have been developed in consequence of the ingestion of drugs were specific only for the drug used.

that a moderate inhibition of hæmolysis* occurred when the serum of a subject taking mercuric chlorid was tested in conjunction with a "syphilitic" antigen,† a cholesterinized extract of guinea pigs' hearts. Even if this latter phenomenon be present only in occasional cases, there should, however, be universal cognizance of the possibility that a non-syphilitic patient taking mercury may at times give a weakly positive Wassermann reaction. I offer no explanation of the manner in which a short course of mercury causes the temporary disappearance of the Wassermann reaction in syphilitic patients.

The slightly higher figures obtained with the colon bacillus are probably explicable on the assumption that the subjects had all been more or less sensitized, owing to the presence of this bacillus in their bodies, and it is well known that the body cells possess a latent power to react more strongly to a stimulus which has once made them sensitive.‡ This point obviously has a significant bearing upon therapeutics.

I regret especially that the necessity of delimiting somewhere the number and variety of my experiments, prevented me from investigating along the lines of anaphylaxis, the response of my subjects to very small doses, after they had been sensitized by the lower dilutions of the drugs.

It will be noted that the drugs used are extensively prescribed in those infections with which they have experimentally been placed in correspondence, and that tests have been made in an effort to show that drugs do not excite the formation of substances protective against infections by those bacteria whose pathogeneses are dissimilar to those of the drugs used.

We must naturally conclude from a study of immunological reactions that a partially specific relationship or affinity is undubitably operative. We must just as certainly conclude from a study of rational pharmacodynamics and pharmacotherapeutics, that there is a conspicuous and fairly uniform relationship between drugs and healthy or diseased tissue. Most of us present are confident that this relationship is based upon the principle of symptom similarity. The point which I wish to make is that there exists a

---

* Whether or not the substance which caused deviation of complement in these experiments partakes of the nature of a "reagin," can be at present a matter only for conjecture. Reagin is the name suggested by Kolmer[41] for a body capable of binding hæmolytic complement and not a true antibody in the sense of being prophylactic against or destructive to the antigen. The existence of such a body has not been demonstrated.

† It was also found that an "arsenic" or an "ipecac" serum caused no inhibition of hæmolysis in conjunction with a *syphilitic* antigen; that an "ipecac" serum was likewise ineffectual with *typhoid* antigen, while that from a mercurialized subject, although giving complete inhibition with the "Flexner" antigen, caused, on that same day, only very slight inhibition with typhoid antigen.

‡ Cole[40] has demonstrated that when an organism has once been infected with *B. typhosus* or its toxin, reinoculation more readily results in the formation of immune bodies to that bacillus. The value of antityphoid vaccination depends largely upon this fact.

reasonable possibility that the drug and the infective agent, *in that condition in which they affect or are affected by individual cells, i. e.,* when they are truly within the body, may each contain, or *excite the formation of,* ferments, or of substances containing a certain number of common or homologous chemical radicals, which would explain their similarity of action. Expressed in the polysyllabic terminology of the Ehrlichian theory, this implies a measurable degree of community of antigenous or receptoric aggregates.

Granted that we may consider drugs as antigens, I wish to suggest the following outline of a possible method of accurately determining the indicated remedy for patients with infectious diseases by means of the complement-fixation test. The ordinary hæmolytic system would be employed; the bacteriolytic amboceptor present in the serum of the infected patient would be used in the same way as is the syphilitic amboceptor in the syphilitic patient's serum. A series of antigens,—preparations,* as yet undetermined, of those drugs whose pathogeneses most thoroughly cover the totality of symptoms of the diseased patient—would be used according to the usual technic of the Wassermann reaction. The degree of inhibition of hæmolysis would be the criterion by which to judge of the degree of pathogenetic similarity between the drug and the particular strain of bacteria causing the disease. That antigen-amboceptor complex which most effectively caused deviation of complement to itself, and hence caused the most complete inhibition of hæmolysis, should be the simillimum.

If I may be permitted to make the paradoxical statement, this procedure is theoretically practicable† and *if* its workings are verified by clinical observation, should be productive of extremely far-reaching results. A preliminary investigation has been begun in regard to this problem, on which I shall report at a later time.

I have presented the facts, the actual, uncolored observations of my experiments. What do they amount to? How are they explained? What new hypotheses are suggested? What are the conclusions to be drawn? The facts cannot be debated, although the interpretations may, and I must be content with the brief discussion given above, and, the statement that the knowledge of the possibility of modifying the protective immunifying processes of the human body tissues by means of drugs, affords a glimpse of hitherto unsuspected possibilities in this field of chemoimmunotherapy, which can be only inadequately forecasted at present. The

---

* Logically, such preparations should simulate the chemical structure of the drug in that condition in which it affects the cells truly within the body. The problem is to synthesize that form of the drug.

† It is profitable to recall that Hara[42] obtained positive responses with the deviation of complement test in 48 of 56 cancer cases, using phenolphthalein for the antigen. In 86 cases with positive Wassermann reactions the tests with this chemical and with maltose were constantly negative.

work with complement fixing substances, although in some ways less complete, I regard as of much greater value than the work with agglutinins.

I reiterate that the principle by which I selected the various drugs has been the similarity of the drug pathogenesis to the bacterial pathogenesis. It necessarily follows, then, if drugs do influence immunity, that the logical method of drug selection and prescription in disease must be by symptom similarity.

I have but scratched the surface of one small corner of a field of extraordinary magnitude, which, to yield a fruitful harvest must undergo deep delving and cultivation with long and patient assiduity. I feel constrained to omit any further theorizing, for although temporary, undemonstrated, hypothetic expedients may be helpful in providing an intelligible basis for the erection of a more elaborate superstructure, nothing is so detrimental to scientific progress as the persistence of an erroneous theory. At the present day, he who by reasoning alone attempts to penetrate the mystery which veils the problems of immunity, would be certain to fall into error. We can adventure very few broad generalizations in any of the biological sciences, for it is too obvious that logic totters when it would coerce facts. In any case, it is only the mediocre mind that wishes to know everything without much trouble, and which has a strange longing for prompt and safe formulæ.

The same drug or the same disease my produce widely different effects in different subjects, due to the heightened susceptibility or unusual resistivity of the latter. This hypersensitiveness and this resisting power may be quite irrespective of the becoming accustomed to the effects of drug or disease.* Bearing in mind this possible diversity of pathogenic effects, we cannot be overcareful in our interpretations of any laboratory or clinical, pharmacologic or pathologic research. It is for this reason that I must refuse to formulate any conclusions, except one, from my work, until experiments have been performed upon more subjects in number sufficiently large to reduce the individual factor to near the vanishing point; and to obtain results of such reasonable congruity as *must* convince the open scientific mind. As this work now stands, I feel that in its suggestive nature lies its possible value; it is of preëminently greater significance *in posse* than *in esse*.

The questions of specific reactions in health and disease are being forced more and more to the front as biological research stimulates, molds and gives direction to pathologic, pharmacologic

* Such qualities of susceptibility or of refactoriness may be due to differences in race, temperament, habits, environment, fatigue[43], morphology[44], etc.; heredity is, however, the important ultimate factor. Usually the invading forces show comparatively little difference in the same invasion, whereas the resisting forcs vary widely.

and therapeutic research; certain it is, however, that a practical solution of the problems involved will never be obtained without the help of extensive and systematized *clinical* research.

The insufficiency of homœopathy, of all medicine in fact, lies in the unwarranted and confusing predominance of speculative inferences over the results of slow, laborious, painstaking laboratory and clinical experimentation. The strength of homœopathy lies in the fact that recent clinical findings and much pharmacologic experiment tend to confirm the scientific rectitude of those essential principles which still withstand the disintegrating effect of new research and hostile criticism,—those powerful forces which have in the past annihilated so many beautiful theories.

The remedy for the defect lies in controlled scientific investigation. That noted author, H. G. Wells, says, "not that the scientific men are as a whole a class of supermen, dealing with and thinking about everything in a way altogether better than the common run of humanity, but in their own field they think and work with an intensity, an integrity, a breadth, boldness, patience, thoroughness and faithfulness that (excepting only a few artists) puts their work out of all comparison with any other human activity." *Is such work worth while?*

Summary.

1. In a review of the literature, numerous observations have been cited, showing that there exists considerable evidence in support of the hypothesis that many drugs in common use may, directly or indirectly, stimulate the human or animal organism to produce antibodies; *i. e.,* some drugs may possess antigenous properties. Citations have been made to show that tolerance to many drugs can be definitely established.

2. It has been postulated that excepting parasiticidal remedies, all drugs, if they have a curative effect upon medically curable diseases, have that effect by virtue of their properties of stimulating the body to higher functional resistance.

3. An abstract of the results of laboratory investigation upon that most important problem—the influence of drugs in stimulating the human organism to elaborate substances protective against disease—has been given.

4. The agglutinating powers of the sera of twelve healthy human subjects have been studied in connection with *B. typhosus, B. coli communis, B. alpha paratyphosus* and *B. beta paratyphosus,* before, during and after the ingestion of certain drugs. Each subject took one drug only, in gradually increasing doses, over a period of from three to eleven weeks. The drugs investigated were arsenous anhydrid, bryonia, hyoscyamus and phosphoric acid.

5. During the drug period there was a gradual rise in the agglutinating strength of the serum usually in direct proportion to the size of the dose given, as is shown by charts and averages compiled from observations on 2,448 separate reactions. This rise may be accounted for by assuming the production of group agglutinins in greater amount than is present in normal sera. After the cessation of the drug, in most instances there was a moderate diminution of the agglutinin titre; some sera, however, showing a rise or a retention of the same level, four months after the drug was stopped.

6. The influence of baptisia and bryonia, of mercuric chlorid and arsenous anhydrid, of cantharides and ipecacuanha upon the sera of eighteen healthy human subjects was investigated with regard to the presence of complement-fixing substances, presumably bacteriolysins, when experimentally placed in correspondence with typhoid and dysentery (Flexner and Shiga types) antigens respectively.

7. The presence of complement-fixing substances was satisfactorily demonstrated, and these substances showed rather pronounced specificity of relationship.

8. A technic for determining the indicated remedy in infectious diseases by means of the complement fixation test has been tentatively outlined.

The following statement deserves repetition. In view of our present fragmentary and none too well founded knowledge of the science of immunology. I cannot emphasize too forcefully my conviction that positive assertions are distinctly without justification. Hence the one and only definite conclusion which I do feel absolutely justified in drawing from the results of this limited research, is that the subject is signally meritorious of further study.

Bibliography.

1. Faust, C. S.: Arch. f. exper. Path. u. Pharmakol., 1900, xliv, 217.
2. Cited in editorial: Jour. A.M.A., 1914, lxii, No. 21, p. 1662.
3. Rübsamen: Arch. f. exper. Path. u. Pharmakol., 1908, lix, 227, Cited in (2).
4. Dixon, W. E., and Lee, W. E.; Quart. Jour. Exper. Physiol., 1912, v, 373.
5. Clark, A. J.: ibid., p. 385.
6. Robertson, T. B., and Burnett, T. C.: Jour. Pharmacol. and Exper. Therap., 1912, iii, 6, p. 635.
7. Hektoen, L.: The Mechanism of Recovery in Pneumonia: Jour. A.M.A., 1914 lxii, 4, p. 254.
8. Noguchi, H.: Serum Diagnosis of Syphilis. 1912, Lippincott Co., Phil., ed. 3, p. 246.
9. Simon, C. E.: Infection and Immunity. Lea and Febiger, N. Y., 1912, p. 121.
10. Dunbar: Ztschr. f. Immunitätsf., 1910, 4, p. 740.
11. Ford, W. W., and Rockwood, E. M.: Mode of Union between the Amanita-Hæmolysin and Its Antihæmolysin. Jour. Pharmacol. and Exper. Therap., 1913, iv, No. 3, p. 235.
12. Watters, W. H.: North Amer. Jour. Homœop. 1909, xxiv, No. 7, p. 460.
13. Wesselhoeft, 2d, C.: New Eng. Med. Gaz., 1913, xlviii, No. 2, p. 64; No. 12, p. 637.
14. Mellon, R. R.: Med. Century, 1913, xx, No. 6, p. 161.
15. Krohl, p.: Berl. klin. Wchnschr., 1913, 1-2, No. 42, p. 1945.

16. Arkin, A.: Jour. Infect. Dis. 1913, xiii, No. 3, p. 408.
17. Yamanouchi, I.: Recherches experimentales sur un methode therapeutique basee sur la stimulation des phagocytes: Ann. de l'Inst. Pasteur, 1914, xxviii, No. 4, p. 420.
18. Lake, G. C., Osborne, T. B., and Wells, H. G.: The Biological Reactions of the Vegetable Proteins: Jour. Infect. Dis. 1914, xiv, No. 2, p. 364.
19. Ballner: Sitzungsber. kaiserl. Akad., Wien, 1910, 119, Abt. 3, p. 17. Cited in (18).
20. Wendelstadt and Fellner: Ztschr. f. Immunitätsf., 1910, 8, p. 43. Cited in (18).
21. Lusini: Atti. R. Fisiocrit (Siena), 1912, 219, p. 147. Cited in (18).
22. Magnus: Ber. deut. Bot. Gesellsch., 1908, 26 a, p. 532. Cited in (18).
23. Silvestri, T.: Policlinico, Rome, 1914, xxi, No. 10. Abstr. Jour. A.M.A., 1914, lxii, No. 15, p. 1209.
24. Communication: Jour. A.M.A., 1914, lxii, No. 9, p. 711.
25. Dethleffsen: Therap. d. Gegenw., 1913, liv, No. 12, p. 543.
26. Uhlenhuth: Deut. med. Wchnschr. 1900, p. 743.
27. Oppenheimer: Arch. f. Physiol., phys. Abt., Suppl.-Band, p. 336.
28. Vaughan, V. C.: Protein Split Products in Relation to Immunity and Disease. Lea and Febiger, Phil. and N. Y. 1913, p. 351. Gives citations (26) and (27).
29. Solis-Cohen, M., and Strickler, A.: Effect of Tuberculin Treatment on the Leucocytic Picture; N. Y. Med. Jour., 1913, xcv, No. 2, p. 53.
Solis-Cohen, M.: Administration of Tuberculin by the General Practitioner; Med. Record, 1913, lxxxiv, No. 12, p. 514.
30. Runnels, S. C.: Med. Century, 1912, xix, No. 11, p. 330.
31. Duncan, C. H.: New Eng. Med. Gaz., 1914, xlix, No. 4, p. 191.
32. Perkins, A. R.: Drug Action in Disease: ibid., No. 1, p. 6.
33. Vaughan, V. C.: Jour. A.M.A., 1913, lxi, No. 20, p. 1761. ibid., 1914, lxii, No. 8, p. 583.
34. Sajous, C. E. de M.: The Internal Secretions and the Principles of Medicine. F. A. Davis Co., Phil., 1907, Vol. ii, p. 1136.
35. Craig, C. F., and Nichols, H. J.: The Effect of the Ingestion of Alcohol on the Result of the Complement Fixation Test in Syphilis: Jour. A.M.A., 1911, lvii, No. 10, p. 474.
36. Noguchi, H.: loc. cit., p. 99.
37. Craig, C. F.: Variations in the Strength of the Wassermann Reaction in Untreated Syphilitic Infections: Jour. A.M.A., 1914, lxii, No. 16, p. 1232.
38. Wollstein, M.: Jour. Exp. Med., 1912, xvi, No. 3, p. 315.
39. Stern, R. and Korte, W.: Berl. klin. Wchnschr., 1904, xli, 213.
40. Cole R.: Ztschr. f. Hyg., 1904, xli, 371. Cited in 38.
41. Kolmer, J. A.: Jour. Med. Research, 1912, xxvi, No. 3, p. 394.
42. Hara, K.: Ueber Komplementbindungsreaktion bei malignen Tumoren mit chemischen Substanzen; Deut. med. Wchnschr., 1914, xl. No. 10, p. 484.
43. Mellon, R. R.: Relation of Fatigue to Paralysis Localization in Plumbism: Arch. Int. Med., 1913, xii, No. 4, p. 399.
44. Rice, P.: Tolle Causam: Jour. Amer. Instit. Homœop., 1913, vi, No. 4, p. 309.
45. Wheeler, C. E.: Recent Experiments in the Field of Homœopathy: Brit. Homœop. Jour., 1914, iv, No. 6, p. 243.
46. Morgenroth: Berl. klin. Wchnschr., 1903, No. 21.
47. Arrhenius, S.: Immunochemistry, 1907, Macmillan Co., N. Y., p. 1.

THE TOXÆMIC NERVOUS CONDITIONS INCIDENT TO PREGNANCY.*

By J. Richey Horner, A.M., M.D., Cleveland, Ohio.

There should be no nervous conditions affecting the pregnant woman which need treatment. The condition is a perfectly physiological one and should go on from conception to delivery and recovery with no disturbances of the nervous system. Sometimes, however, what ought to be is not and we may be brought face to face with an abnormal condition. As a matter of fact, while we speak of nervous conditions which may happen, few of them do. When they do they have practically the same symptoms met with in the non-pregnant woman.

* Presented at the Atlantic City 1914 meeting of the American Institute of Homœopathy.

Perhaps the most likely affection to attack the pregnant woman is a neuritis consequent upon an auto-intoxication arising from intestinal stasis. This neuritis may affect a single nerve but is most likely to be peripheral. It may be recognized by the muscular tenderness, the paresis causing foot or wrist drop or both and the altered reflexes. If once developed it is likely to persist through pregnancy. It is fortunate that this condition does not in any particular way affect the forces used in parturition. Its treatment is by way of elimination and the best eliminant is water, applied both internally and externally.

While apoplexy is not often met with in the pregnant woman, a general predisposition with renal changes present would make her more liable to it just at this period because of probable changes in the blood and possibly blood vessels. There is also to be taken into consideration the physiological hypertrophy of the heart and the greater stress upon the eliminative functions of the kidneys. As a general precaution, it is well for the accoucheur to know just the state of the blood pressure and if it shows a tendency to rise he must enforce quiet and rest with abstinence from stimulating food.

The neuralgias of the pregnant woman are mostly those produced by pressure. When this is exerted in such a way as to prevent proper excretion, the result is a toxæmia. The treatment is purely mechanical and consists in properly supporting the uterus, relieving the pressure. The effects can then be cleared away by stimulating excretion. If the pressure has caused intestinal stasis, the use of water as we have before advised is indicated.

In poorly nourished women the nerves of secretion are often very much disturbed. Salivation is most frequently found. This may be excessive and seriously inconvenience the patient, besides debilitating her. Lachrymation may be profuse as may also be prespiration. All these conditions may be reached by building up the patient by means of forced feeding to the limits of assimilation. Tonics should be used as indicated. There is nothing in the way of local applications which may be safely used in these conditions.

Perhaps all of us can recall having one or more cases of mental derangements occuring during pregnancy. These are of either the manic or depressive type and may persist into the parturient stage. It is most important that they should be recognized early for the most careful and insistent care is required if we would prevent accidents happening. In the manic form these accidents are purely involuntary in so far as the patient is concerned and consist in violent termination of pregnancy as a result directly of abnormal activities of the patient. Early diagnosis and treatment are particularly important in the class of cases under consideration, namely, those

the result of toxæmic conditions, particularly if its source is the intestines or the kidneys. Frequently convulsions develop, the occurrence of which, of course, calls for the immediate emptying of the uterus. Where this is not made necessary, the indication in treatment is for as much rest as can be obtained. As in all conditions the result of toxæmic infection, elimination is indicated. It is hardly necessary to sound a warning against the use of narcotics. The well-known effect of these upon the fœtus would argue against their use except in rare instances and only in the case of the utmost necessity. As a matter of fact, mania does not often obtain in the toxæmic states but is more often the result of mental shock.

Toxæmia more often causes the depressive state and this is much more serious because of the tendency to slow reaction and because most of these patients are suicidal. Constant and unremitting care should be exercised to prevent this unfortunate climax. A moderate amount of action and diversion is necessary. The patient should never be left alone and effort should be made to lead the mind away from their imagined troubles, for we find the patient indisposed to mingle with her family and friends, reserved and often distrustful. She may develop hallucinations and delusions and pass into a condition of established melancholia. Active measures are necessary to prevent this.

There are cases of nausea and vomiting which might properly be discussed here. These are cases which are first the direct result of an infective process which produces a toxæmia and second are engrafted upon an unstable nervous system. In these, the latter is the predisposing cause and the former the exciting. The treatment of these cases consists of elimination of the toxin and conservation of the strength of the patient.

The necessity for complete, physiological rest is just as great in the treatment of nervous conditions incident to pregnancy as it is in those found in the non-pregnant. Excitement of all kinds should be avoided as also should overwork and overexertion. The greatest efforts should be made to have the environments pleasant and quiet with only those diversions which the patient may have without unreasonable waste of her strength. Measures should be taken to insure the proper amount of sleep, without the use of narcotics, if you will remember. Mental and physical repose just before the time for retiring should be insisted upon. Good results may be obtained by the use of hot milk, a cup being sipped just before the patient is ready to retire. This has been helpful in many cases.

As a general proposition it is of great importance that the excretory organs should be kept fully active during pregnancy. Probably no tissue of the body is so susceptible to toxins as the nerve centers. With these infected no part of the body is safe from

abnormal conditions. There is always a great tendency on the part of the intestines to become clogged, with the resultant absorption of the toxins found therein. The free use of water is urged. The pregnant woman should take upward of ten or twelve glasses each day. It will be found that the woman who pays attention to this will keep her elimination up to its fullest activity. She thus runs less risk of developing a toxic state. Too much stress cannot be laid upon this point.

It is also important that the food shall contain such ingredients as shall contribute bulk to the fæces. There is thus a far greater chance of the bowels acting normally than if her food does not contain these properties.

The limitations of the title of the paper precludes discussion of the many conditions of the nervous system which may accompany or follow or be the result of the process of labor. Pressure of the head may bring about conditions which are followed by paralysis. Accidents may occur which will bring about lesions of the nerve either along its course or at the periphery. Disturbed mental conditions are found either developing after labor or continuing from the pregnancy. These conditions might profitably be made the subject of discussion at some future meeting.

THE QUESTION OF THE HEREAFTER FROM THE PHYSICAL STANDPOINT.

By O. S. Runnels, A.M., M.D., Indianapolis, Indiana.

Not the least of the many interesting and highly scientific papers presented to the American Institute of Homœopathy were the medical sermons delivered by certain of our members in the pulpits of the Atlantic City churches. Strangely enough, without any knowledge of what the others would say, each speaker dwelt particularly upon the subject of "The Hereafter," with such physical evidences for its existence as present themselves to the physician.

The *Gazette* will publish three of these sermons in future numbers, beginning with the one given by Dr. Runnels.—[Ed.]

"If a man die, shall he live again?"—Job 14: 14.

Aside from acceptations of faith, what basis is there for belief in the continuity of existence? Is there any evidence in the nature of things to warrant the contention that the soul is everlasting, and that when the body ceases its animation it does not vanish like the flame of a blown-out candle, or a cloud that is dissipated by the morning sun? If continuity be a fact it must be so, not primarily, because it is promised in the Bible, but because it is promised in the constitution of the universe; it must have existed from the beginning, "before the mountains were brought forth or

ever the earth was formed." If the soul be an entity, it must have relationship to the things that be, and is as much a part of the eternal order as the law of gravitation, or any other invisible, imponderable and immaterial force. That it is without lines of dimension, or weight, or realizable form—apart from the body—is no evidence of finiteness and non-existence. For we know of it by its behavior as an individual, and by the qualities and powers it calls into being independently. It expresses itself in ways aside from the things that we can see, measure and weigh, and in addition, has what is possessed by no other thing, *viz.*, personality.

Granted that "you cannot follow yourself into a state that does not announce itself to you through sense impressions, and that the survival of conscious activity, apart from material conditions, cannot be proved," the evidences are so suggestive, the logic of the argument is so forceful as to necessitate the strongest belief in its certainty. Where we cannot see, hear, taste, smell or feel, there are other faculties existing to serve us.

Investigation connot go far in any direction without encountering proofs of mental operation; the highest exercise of thought is evident, in every creation, however small or great. As far as man's mind can follow, all natural operations are intellectual, everything is in accordance with a wisdom, very human in kind, but raised in degree to boundless expression. Everything in nature has been thought out in exact and infinite detail. Everywhere there is recognition of mentality; there reigns a Spirit of Intelligence.

The fact that man is able to comprehend the works of the Creator, even in faintest outline—in other words, can "think God's thoughts after Him," however feebly, elevates him above every other force and places him at once in close relation to the One Who made him. This idea has been well expressed as follows: "I know that I am mortal and the creature of a day, but when I view the close-set whirling circles of the stars, no longer do I stand with feet upon the earth, but seated with God Himself, I take my fill of the breath of Heaven." (Young.)

Is it possible to escape the conclusion that God and Mind are intimately related—if not identical—and must stand or fall together?

Every advance of knowledge proves that life itself is in the spirit; that the progressive change exhibited in animate substance is but the portrayal of that unknowable force we call life, and that this precedes all organization. First upon the scene of our existence here is the living voice calling upon this and that substance to take place in its structure—is the architect at the building, ordering this stone to its corner and that beam to its center. Man, or the

God in him, finds what he wants and uses it according to his needs and sense of beauty.

Where this builder came from and all the facts of his lineage, we do not know, further than that he came out of the unknown, and, being made in His image, possesses many attributes of the Deity. Our present mental acquirements are too rudimentary and alphabetic—our knowledge is too meager to understand the secrets of life. But it is possible even with our present equipment to demonstrate the fact of spiritual being—the existence and individuality of a force within us that is above and beyond all that surrounds us. At least we can make it strongly probable, almost certain, that our ego had existence before our body was assembled, and that therefore it must continue when the material panorama shall dissolve and fade from the screen.

The presence of a quickening spirit within and everywhere about us is evident. Every expression of growth and development, either in plant or animal, is testimony of spirit-life. No student of nature can think deeply about the phenomena that surround him without realizing the indwelling and omnipresence of a life-giving Spirit.

This led Linnæus to say, after watching the play of chlorophyll in an unfolding bud: "I see God in His glory passing near me and I bow my head in worship." And Tennyson, also: "If I could understand what you are, little flower, root and all, and all in all, I should know what God and man is."

As yet, we are in the dawn of psychology and have little knowledge concerning it; but facts are accumulating to prove that Eucken is right in his contention that, "The corner-stone of all philosophical thought, and the axiom of axioms, is the fact of a world-embracing spiritual life."

That the spirit within us is larger than the body containing it and has power to project itself beyond its confines—even over wide spaces—and to impress kindred spirits near and remote, is indisputable experience. Simultaneous and identical thought-action among friends either associated or far distant from each other, has been observed so frequently as to give proof of thought-projection.

Telepathy is still in kindergarten and its messages are short; but instances of its fact are common. It is a thing of the mind—of minds sympathetic—and tells of a soul-force capable of banishing distance and imprinting itself upon a mental receiver, wherever found, that is keyed to its vibrations. Is this more wonderful than the S. O. S., the wireless signal, sounding afar over the great deep; than the magnet that claims its own through liquids or solids; or than the wonders of radium thus far but hinted at? May not the

soul, too, have powers of radiation or vibration that are wonderful beyond all ability of present comprehension?

There are many actualities that are intangible, inaudible and invisible. All about us there is an unseen world of which we are ignorant, but of which we can entertain no doubt. The ear is capable of hearing only two or three octaves in music, but the harmonies above and below these familiar sound-waves are unknown. The colors expressed in the rainbow by given amplitudes of light-waves are familiar, but what the longer and shorter amplitudes express, we have not seen. Discovery and invention are every day proving to us more and more that the universe is ever vaster and vaster and that the area of the known when compared with the area of the unknown, can be told only in terms of the finite and the infinite. Everything prophesies an everlasting extension of knowledge; the more we know, the more there is left to be found out. If all this be true of our life when limited by the physical, what may be realized by the same existence when freed from the trammels that confine it?

Man is still the greatest of all studies and our acquaintance with him is but slight. We cannot measure his powers or get possession of his secrets. He answers present at every roll call and makes impression upon us in a thousand ways. We call him a soul, but find his analysis impossible. We know, though, by birth-pang and every evidence of mentality, that he exists and is a fact.

And this is of primal importance, inasmuch as the argument for his continuity hinges upon the fact of his being—upon the soul's identity as an individual force. If the soul has actual existence, it is a positive entity, an actual thing. And now, every resource of logic as elaborated in nature, comes to the rescue. An Elemental Thing is inextinguishable and cannot be put out; you cannot quench it, destroy it, or deprive it of its characteristics. It has an identity eternally fixed by which it shall be known wherever found.

This is true of all the bases or elements. No crucible can eliminate gold—it is beyond all destructive agency. All the same is true of the entire known list—they may be scattered, but will reassemble. They are here to stay; they are a part of the universe; the spectroscope finds them in the distant stars. Combinations of the elements are formed and even transmutation has been wrought; but the elements by which all creation is expressed, remain forever.

The analogy holds, also, with regard to all the immaterial forces. No one of them has ever been lost. Each one not only keeps its place in the category of things, but grows and expands in our conception with every advancement of knowledge. Each has its special plane of operation, but has relationship to, and is a necessary

part of the universe. According to the cardinal principles of physics, "no energy or force in nature has ever been lost or destroyed."

The synthesis of chemistry—the combination and correlation of forces—as exhibited everywhere in nature—bears witness to stability, to endurance. Even through transformation and cosmic change, everything is saved, there is no waste. The formulas of nature are the same yesterday, today and forever. There is no evidence to show that any law of creation has ever been suspended or rescinded.

It was decided by the Creator that human life upon the earth shall require ninety-eight and four-tenths degrees, Fahrenheit; that carbon shall give up its heat units in sufficient quantity to supply the demand; that fire shall burn whenever and wherever the feast is spread, and be servant or master as the case may be; that pure water, at sea-level, shall boil at two hundred and twelve, and freeze at thirty-two, and that hydrogen and oxygen shall combine to produce water in proportions of two to one. These and other regulations are fixed and have no exceptions; they have been so from the first. Likewise everything inanimate is the result of chemical and physical combinations in accordance with ancient formulas, always dispensed with precision.

Fixed and exact also are the laws of life in plant and animal, the obligatory principles in accordance with which all things have been created. Why the creation was built on the synthetic plan has not been revealed; no one has explained. We note the facts and conform to them, or take the consequences.

It has been said that the vital question—the question of living, has two sides to it, a physical side and a spiritual side, each having laws of its own; and this is, apparently, so. There is association and inter-relationship in the borderland where soul and body overlap or blend; but, note this, the body is the creature of the soul and cannot exist without it. The vital question, therefore, really has but one side to it. The soul has a body that serves as its visible residence. The soul is but the tenant of the body, which it creates.

It is observable that all nature is vibrant and instinctive with life, that the one supreme purpose of creation is to produce life, and to produce it more abundantly. The lesson taught by evolution through the long gradation upward, has been the perfection of life, higher and more faultless conditions of life, better instrumentation for the expression of life. This is prophetic of that far-off divine event, life, raised to the highest power, to the supremest perfection.

Electricity is the nearest analogue, has the closest correspondence to what we call life, of any thing known. But from the days of Franklin's kite there has never been any intimation or suggestion of its extinction. Every schoolboy and amateur, every Tesla and

Marconi, have added to our knowledge of it until its domain, in our thought, has become vast.

But "What we have done with electricity," says Edison, "is only a beginning; we have barely emerged from the chimpanzee stage. It is all a question of the development of the human brain. Some men now think eight times faster than others. I have proved it by actual test upon a machine. As the brain becomes more complex we will be able to accomplish things with electricity that would seem fantastic today."

It is clear, then, that we are as yet hardly introduced to electricity and that its realm is infinity. Can you conceive of a universe devoid of electricity? Will it ever evanesce and become obsolete?

The thing known as life, soul, mind, spirit, is upon its lowest plane, just as realizable, just as tangible and just as operable as any other force in nature. It has all the elements of objectivity, of actuality, and of reality, possessed by any of the earthly agencies. Yes, it has all these, plus intelligence, love, mercy, prudence, foresight and creative ability. With these attributes of God Himself, is there not proof that it has its name upon the list of the things that are imperishable and that it shall continue forever? Is it likely that the very highest work of God's hand is an abortion, a thing null and void? Have we not a right to the logical conclusion that the analogy shall hold, and that the soul, too, shall be indestructible and inextinguishable?

In addition to all this, there is another equation to be reckoned with, another part of the problem always to be taken into the account. *There is an organic demand for an hereafter.* In the language of Shakespeare:

"I have immortal longings in me."

And of Addison:

"Else whence this pleasing hope, this fond desire,
This longing after immortality?"

And of Lowell:

"Perhaps the longing to be so
Helps make the soul immortal."

And of Wordsworth:

"Thoughts whose very sweetness yieldeth proof
That they were born for immortality."

And of Emerson:

"The impulse to seek proof of immortality
Is itself the strongest proof of all."

Intuition, and instinct, the longing desire for the unpossessed, even a dim uncertainty of a possible acquisition, are all evidences of a positive character and give forecast of a realizable thing. Whether it be the guiding force of the carrier-pigeon upon its

homeward flight, or the untaught gropings and yearnings of the soul after immortality, the inference is the same. They are indices, not only of the *possible*, but of the *probable*—even of that which is to be.

That we shall go on living after death is the urgent prayer of mankind. That opportunity may be afforded to render more perfect that of which this life is, at best, but a fragment, is the desire of every normal soul. And this is very significant. For wherever in the process of evolution nature has expressed a want, it has been supplied. No creative need has ever been unheeded; no prayer of nature has ever gone unanswered. Growth has always been in accordance with need and inclination. Clumsiness, grossness and ill-adaptation have ever given way to the demands of beauty and use, and every transformation has come in response to long-felt desire. Whenever a new organ in the animal body has been wanted, in the fullness of time it has come; and specialization has been from the first the order of the day.

That the various organs of the human body have come through evolution, one after another, in order of procession, is unmistakably shown by the lagging presence in the body of obsolete organs and parts of anatomy no longer serving a purpose. Such are the appendix vermiformis, the muscles of the ear, the wisdom tooth, and over seventy other vestiges of former usefulness.

After long, blind gropings, for instance, the prayer for light was heard. The phosphorescence in the integument of the paleozoic animal slowly evolved; the nerve-terminals expanded upon the surface of the investing membrane and became more and more sensitive to light at given points. By the continued irritation of light-waves this sensitiveness to light grew more acute, progressively developed, and the germ of the eye was established. Up through the infinite ages and on through interminable changes, little by little, through use and demand the eyes that we have with all their range and powers, have been perfected. It took eons of time, to be sure—God had it to spare—but the prayer for light was answered, the window for the soul was provided. It was not light passively received that made the eye; but light, plus the indwelling spirit, the creative principle, that knew how to utilize it and hold its rainbow effects in iris, pupil and retina.

It will not be necessary to multiply instances of which this is a type; for in this manner during the eternal ages, human creation, and all other kinds of creation, have come. Everywhere in physical life there have been proofs of the validity of the promise:

"Ask and ye shall receive; seek and ye shall find; knock and it shall be opened unto you."

Let us continue to think of that something which is greater

than the force of gravity, than chemical affinity, than electricity, or any and all of the forces that hold matter in place and that act and are acted upon in the physical world; think of an intelligent principle that can and does preside over world-forces, using them at will, giving this precedence over that, as need arises, and so working together with God in conducting the order of exercise as to bring to fruition of growth and fruitage that which is highest and best in our creation. Let us ponder over that something called the *vis a tergo*, or force from behind, that is pushing everything in life to an ever higher and higher development; that takes organic matter, itself a wonderful creation, and plants a seed which grows and reproduces; that uses matter as food, transforming it into chyme, chyle, blood and nerve-force, or vital energy; that is always urging everything onward and upward; think of memory, affection, emotion, will-power and conscience—what is that but energy, immortal spirit, eternal life—"The life and the light of men that was with God in the beginning."

Regardless of all this, however, experimenters continue to come from the laboratory telling us that life is purely dependent upon physics and chemistry; that almost every expression of life has its analogue in chemical reaction and the exercise of physical laws; that the similarity of spontaneous movement in the amoeba, the cells of the human body and inanimate substances generally, are indistinguishable, and are the result purely of physical and chemical changes and reactions. They say that the laboratory disproves vital spontaneity or the existence of life apart from matter. Their argument is long drawn out, but fails to account for will-power, memory, understanding, recognition, imagination, invention, realization, love, hope and despair.

Sir Oliver Lodge, as President of the British Association for the Advancement of Science in 1913, gives unanswerable rebuttal to this, and that life is non-existent when the pitcher is broken at the well or the dynamo is turned off.

"Everything beyond the natural," he says, "belongs to another realm and must be reached by other methods. To explain the Psychical in terms of Physics and Chemistry is simply impossible. Life is full of experiences quite apart from laboratory experiments. We ourselves possess life and mind and consciousness and have first-hand realizations. Consciousness and Will are realities of which we are directly aware—just as directly as we are of motion and force, just as clearly as we apprehend the philosophizing utterances of an agnostic. How consciousness became associated with matter, how life exerts guidance over chemical and physical forces, demand explanation, but they are unquestioned experiences and ignorance of their modus operandi is no argument against them. The

blind man could not explain his cure; so it is with 'the main miracle that thou art thou with powers on thine own act and on the world.' Science may not be able to reveal human destiny, but it should not obscure it.

"It has been clearly demonstrated that memory and affection and all the soul attributes are not limited to that association with matter by which, here and now, they can manifest themselves; but great reinforcement to the thought of continuity is gained by studying that association."

Evolutionary science has rendered no greater service than the light it has shed upon death. Metamorphosis is only another term for life in its ceaseless change of cell-structure. The living soul resident in the cell appropriates what it wants from the world of matter and discards it when it is through with it. In doing this it replaces the worn-out or dead portions of its structure by substituting other material. Cell-life implies cell-death—the latter being complementary to the former. Life implies constructive movement—the use of that which is needed and the rejection of the same when it has served its purpose. The process of living, therefore, is the process of dying. There can be no life without cell-change, development, evolution. This is true of the primordial germ employed at the inception of our earthly life; it is true of all the cells employed during every second of time consumed by the resulting soul-garment or body; and *must be true* of the change culminating when the life-principle no longer requires earthly matter for its habiliment.

Death therefore entered the world hand-in-hand with life. It came in the natural order, as a phase of life. As walking is falling forward, continually, so living, is dying, continually. There can be no cessation of death while forms of matter are required for life-expression. It is a phenomenon of cell-activity, necessitated by every evolution of life from state to state of existence. What becomes of the offal—the cast-off product of the life-process—in its bits and its final entirety, is inconsequential. What has been discarded has been proven to be no longer useful, and returns to its native dust.

Our bodies are recognized as the same from day to day and year to year, throughout life; although they are undergoing unceasing change during every instant of time. They become thus dead and buried a thousand times, more or less, during an ordinary life-span. Funeral trains are always in motion carrying away the dead from the living body. Death, therefore, is an incident in our evolution, in the activities of this vital principle of ours, that has been "hidden in nature's heart from the beginning." It is an ever-recurring step in the ascent of our life; it came to serve, to

help, and not to hinder. Our life, we must believe, is more than our death. Life—the soul—is certainly regnant over our *daily* death, and doubtless will prove to be so at the end of the *earth-cycle* when it evolves into the next phase of its existence that is higher and richer. The interpretation of Jesus was a deep reading of the great life-secret: "It is the spirit that quickeneth."

So it is that the world is full of hints, suggestions, analogies, logical deductions, verifications, and what we may call circumstantial evidence, to prove that the life we live is related to and is a part of the Omnipresent Spirit of life that presides over the destinies of the Great Ethereal Deep—the everywhere, all about us—in which all men, all worlds and all star-Systems are moving and existing.

The final presumptions of science, therefore, finite and brief though they be, are sure footings for the asumptions of faith; for where the sight of the eye ends, the vision of the reason begins. There is as much call for the exercise of faith, today, as ever since time began; but with larger and vaster hope. There are more unanswered questions now than ever hitherto, because the horizon of the mind has been immensely expanded.

There will always be mystery in this world and an ever-increasing fund of it. There will always be a growing waiting-list of questions with answers deferred. For the most part, these must abide until the veil shall have been removed—until the darkened lenses shall have been lifted from our eyes.

With these thoughts, and other thoughts that have comforted mankind since the death and resurrection of Jesus Christ, I shall nurture further my longing for immortality. I shall continue to yearn for the revelation to my consciousness of all that I now desire to know. I shall go on endeavoring to penetrate the deep spaces beyond the stars and the limitless expanses of knowledge in every field. I shall never be content, until some bright morning I shall awake to find myself yet more "in His likeness," and to realize that "all these things have been added unto me." In that day I shall comprehend—shall I not?—that *the heretofore, the here, and the hereafter are but one everlasting now;* the *now,* of yesterday and the *now,* of tomorrow.

ECHINACEA.

By W. R. Boyer, M.D., Pawnee City, Nebraska.

Purple Cone Flower, Black Samson, Niggerhead.

A plant having narrow leaves, and purple, cone-shaped flowers; grows on the prairies west of the Mississippi River, and is classed as one of our wild flowers.

It is with, I trust, pardonable pride of home and its traditions that I take up the study of this remarkable plant and its pharmacology, for it was at my home town, and through one of its characters that it first became known to the profession.

In an early day there was located in Pawnee City an old German physician, Dr. Meyer, a quiet, unassuming, almost taciturn man, yet a close student and keen observer. One day in crossing the country on horseback, he came upon a battle-scene, having as its participants a rattlesnake and a gopher. He stopped to learn the outcome of the fight, and witnessed, after a fierce struggle during which the rodent was bitten several times, the snake succumb. Then, student that he was, he thought to learn what would become of the little animal. It immediately left the scene and, after a short search, it attacked the soil about the root of a "Niggerhead." After exposing a part of the root, it proceeded to ingest it. The doctor then succeeded in capturing it, and carrying it home with him. He kept it in captivity for a time watching for the appearance of toxic symptoms, but they never appeared.

The doctor then undertook some experiments in vivisection, as it were, on his own account. He procured a rattler and exposed different animals, then exhibited Echinacea, with the result of proving its entire efficacy.

Now comes the tragic part of the tale. After satisfying himself as to the virtues of the plant, he began the making of a tincture and sale of it under his own name, and was, to his way of thinking, on the high road to fame and fortune; but alas for so futile and selfish ambition! The merit of his medicine was the cause of his own downfall. There was at the time located in Pawnee, an electic physician who procured a specimen of the medicine and sent it to Lloyd's in Cincinnati, who made an exhaustive study of it, and through them it became known to the profession. The poor old German doctor, seeing his demand transferred to the pharmaceutical houses, in his keen disappointment blew off the top of his head with an old army pistol.

I will not enter upon the mistaken ethics of Dr. Meyer in his endeavor to commercialize a boon to the world at large, which his genius and medical knowledge had permitted him to discover, but I

will simply say that had he been the broad physician he should have been he might be living today, and surely, the sense of gratification he might be enjoying as the discoverer of the most universally used drug in the pharmacopœia would, it seems to me, have more than repaid him what pecuniary loss he may have suffered.

Three years ago, Lloyd's sent out to their clientage postal cards requesting them to name the forty drugs to which they had most frequent recourse and most confidence in. When the reports were returned, Echinacea was easily at the head of the list, being the one drug mentioned by every one of the correspondents.

So far as I am able to learn there has never been an accurate proving made of Echinacea. Dewey gives its symptomology as follows:

Head—Aching, with a peculiar periodic flushing of the face and neck, dizziness and profound prostration.

Nose—Foul smelling discharge, membranous formation protruding.

Mouth—Canker, gums receding and bleed easily, corners of mouth and lip cracked, tongue dry and swollen, sordes, tongue and lips and face tingle; the sense of fear about the heart; white coating on tongue with red edges.

Stomach—Sour belching and heartburn, nausea better after lying down.

Throat—Tonsils purple or black, gray exudation extending to posterior nares and air passages.

Chest—Pain as of a lump in the chest and under sternum, pain in pectoral muscles.

Urine—Scanty and albuminous, frequent and involuntary.

Female: Puerperal septicemia, discharges suppressed, abdomen sensitive and tympanitic.

Skin—Recurring boils, carbuncles, insect and plant poisoning, enlarged lymphatics.

Fever—Chilliness with nausea, cold flashes over the back.

General therapeutics—Blood poisoning and septic conditions generally. Appendicitis, typhoid fever, boils, gonorrhœa, erysipelas and foul sores, gangrene, malignancy in acute disorders, venom infection, puerperal septicemia, cerebro-spinal meningitis.

Dr. Matthews in describing its physiological effect states that when taken by the mouth a pungent warmth is at once experienced, which remains for an hour after the buccal cavity is emptied of the drug. The sensation closely resembles that produced by aconite, but more of a nerve irritant. If a small quantity be swallowed it produces a sensation of constriction, a very marked sensation, and excites a profuse flow of saliva. The stomach improves its function, the kidneys and whole glandular system seem to be stimu-

lated by its action, and auto-toxemia from intestinal putrefaction greatly lessened. It stimulates retrograde metabolism probably better than any single remedy known, except phosphorus. So far as any investigator has demonstrated it, there are no toxic properties. This makes it a valuable medicine, even in the hands of those having a tendency to use heroic doses. Potter's Materia Medica, 10th Edition speaks of it as follows: Its properties are anæsthetic, antiseptic, and alterative. It improves digestion, it is nutritive to the nervous system and seems to be specifically antagonistic to all organic infections of the blood as acute sepsis, pyemia, and serpent venon.

Extraordinary accounts are reported of the efficacy of this drug in poison by a rattle-snake venom, in which a strong tincture is used locally and internally with invariable success, also for bites of tarantulas, spiders and scorpions as well as for the stings of wasps and other insects.

It has a high reputation for tetanus and pyemia and has given great satisfaction in ulcerated conditions of the intestinal tract. In typhoid fever it modifies the symptoms and fever. It has proven of positive value in septicemia pyemia, boils, abscesses, carbuncles, glandular inflammations, cerebro-spinal meningitis. In diphtheria it is believed to be antagonistic to the action of the toxin on the blood. In medicinal doses it has no toxic or other undesirable effect and it is eliminated perfectly.

My own experience has been quite extensive with its use, and I can personally subscribe to its remedial action in those cases we commonly designate as septic or phagedenic. It seems to be the vegetable Lachesis, Crotalus and Arsenic. I have obtained the most remarkable results in the treatment of typhoid fever, septic peritonitis, carbuncles, stomatitis, diphtheria, infected wounds, bites of insects, and moist gangrene.

Owing to the imperfect proving of the drug, it must be, as yet, used, in a manner, empirically, but we are hoping that some talented and patient investigator in our school will make a satisfactory proving and give to us a reliable symptomatology that may guide us to its proper selection when indicated.

THE X-RAY AS A CURE FOR CHRONIC SKIN CASES.*

By Laura J. Brown, M.D., Lincoln, Neb.

Only recently there was held in our city The Nebraska Academy of Sciences, at one session of which the president read a learned and comprehensive paper on Radioactivity. Very few of his audience could comprehend more than a small part of the splendid accumulation of facts about this comparatively new field of study. The advance from the teachings of the Greek philosophers of two thousand years ago, that the universe consisted of the four elements—earth, air, fire and water—has been most gradual, and up until the close of the last century most of our physicists were content to teach the existence of but seventy to eighty original "elements" from which all matter was composed. Now our scientists give upward of ninety, with others soon to follow. One of the last, separated with almost inconceivable skill by Rutherford, has been named Nitron and is probably destined to supercede even radium itself in its wonderful radioactive properties.

Most of us are familiar with the terse expression that "Nature abhors a vacuum," and were taught that all space is occupied by matter, by force and by ether. Today scientists are asking whether force and electricity do not constitute matter and that all space therefore is filled by force and ether.

From the molecule to the atom, from the atom to the electron, is probably the path that physicians will all tread until the wall of prejudice which now trembles between the various schools will fall and we shall all stand on an open plain where only the preservation of life counts and all forces are united in one phalanx battling the common enemies,—disease and ignorance.

The surprise of the laity that the X-Ray is of any service, aside from that of diagnosis, is constantly being brought to our attention. Where do they get this idea if not from the profession? It is this fact that leads to the presenting of this paper today. The claim that the X-Ray has no germicidal qualities has been proven false again and again. This claim may be true for cultures or agar or other media in the laboratory which are subjected to the X-Ray for a longer or shorter period, but for germs in the living tissues of the body it certainly is not true. This may be best explained by the effects of the X-Ray upon the circulation. The primary effect is to increase the blood supply of the parts exposed, thus bringing a greater amount of nutrition to the parts, with a coresponding increase of the phagocytes which undoubtedly make the most of their

* Read before the Nebraska Homœopathic Medical Society, May, 1914.

opportunity to destroy the bacteria. If the exposure be prolonged the circulation is retarded and necrosis may occur.

Hardly a day passes that some patient is not subjected to the X-Ray for therapeutic purposes. Tuberculous arthritis, adenitis or even phthisis have never yet failed to improve under the X-Ray in my office, and most of the cases remain cured to the present time.

Nodular growths in the breast have proven most responsive to X-Ray. In my ten years' experience only two cases have been subjected to the knife, neither of which were alarming to me, and no case treated has failed to be permanently cured.

Cancers of various kind have not been of such uniform satisfaction;—post-operative cases are almost universally disappointing. Epithelioma is usually amenable to treatment with the X-Ray.

But it to my experience in chronic skin diseases that I wish to call your attention today.

Acne is a disease which is perhaps as common as any which we are called upon to treat, and from the peculiar structure of the skin it is one of the most difficult. External applications affecting only the epidermis leaves the germ undisturbed in the sebaceous glands of the derma. But the penetrating power of the X-Ray is sufficient to rout him from his happy home, and in about six weeks you can expect a skin as smooth as an infant's. For the X-Ray not only destroys the germ, but, by stimulating the skin, the texture is improved and the dull, greasy look, which almost invariably accompanies acne, is gone. My routine method is (1) to give directions for general health; (2) prescribe a warm bath for the face each evening, using soft cloths and any good soap; (3) then follows the steaming of the face for twenty minutes and (4) the massaging in of an antiseptic ointment for five minutes; (5) report at the office once a week for an exposure to the X-Ray for from seven to fifteen minutes. Spark gap of tube two inches. Protect the hair with lead foil or impervious rubber. Light complexioned persons cannot take as long exposures as dark. Expect freckles, which will disappear in a few weeks.

Lupus is another most easily controlled disease. In this case dermatitis is desired in the second or third treatment. Those cases in which vesication occurs early are almost sure to be permanently cured. Tell your patient to expect the erythema, and all will be well. The discomfort lasts but a day or so and is much more to be desired than the long series of treatments which are necessary to produce a cure without the dermatitis.

Perhaps the most grateful patients are those suffering from psoriasis. You can promise a cure in these cases for a certainty. They usually come with a history of long duration, seldom less than twelve years. The uniform summer improvement always

makes them hopeful that the disease will disappear of itself. Only a few treatments are necessary for the individual lesions, but don't fail to demand the report of all spots affected. Use the tube soft and give from seven to twenty minutes to each area affected.

Time forbids a duscussion of varicose ulcers, pruritus, hypertrichosis, furunculosis and other lesions, and we will conclude with a description of the treatment of eczema.

Several cases of old fashioned "tetter" of many years' duration have been sent to me this year, one yielding to six treatments and another almost well after having but two X-Ray exposures.

My most interesting case this winter was that of eczema of five months' duration, beginning "to bother," as the man expressed it, after a wire cut in the early fall. When he came to my office April 1st he certainly was a pitiable object. He had come in to Lincoln to enter the hospital, as the fifth and last doctor who had his case had told him at the last visit if he did not improve he would have to go to bed. He was bandaged from head to feet, so nervous, and in such agony could scarcely speak. The flesh, in large areas, looked like raw beef oozing blood and serum. We gave him the indicated remedy, for none of the five M.D.s had been a homœopath. Tried to get the X-Ray on every part of the body and sent him home to a town out in the State. He returned in three days somewhat improved. The treatment was repeated, and in three days more he came into the office wreathed in smiles instead of bandages, the skin looking healthy. He was accompanied by his mother, who had had a somewhat similar trouble for years. This man had but four treatments, after the second of which he was able to resume his work on the farm.

These cases I trust will convince you of the efficacy of the X-Ray and lead you to study carefully into the subject of radioactivity, which is occupying so much attention in all scientific circles and which I am convinced is destined to become one of our greatest therapeutic aids.

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 8-E. Pellagra.*

The patient is a woman 64 years of age, born in Massachusetts, of Irish parents. Her early history is unimportant. She worked as a nurse and a housekeeper and married at 35, going to Minneapolis where she has since lived up to six years ago when she removed to a farm in New Hampshire.

She has been running down and has had indigestion for a year or more, and last fall was thought to have cancer of the uterus. She was operated upon and the uterus with a large polypus removed. Soon after the operation she became depressed and notional, lost weight rapidly (then 150 pounds, now 69 pounds). She was in various hospitals and sanatoria, but found fault with each, especially with the food, and finally got to a stage where she refused food altogether because she "ought not to eat," and had to be fed by a nasal tube.

Mentally the patient is now in a state of agitated depression. About two months after the operation she began to be depressed and thought that she was being bothered too much by treatment at the place where she was staying. This condition of dissatisfaction gradually got worse and lately she has been quite agitated, although at present she is quieter than for some time. She is well orientated as to person but only fairly as to place; she realizes that she is in an institution and can give the name of it but is not sure what part of the country it is in. As to time she has no idea of the day of the week, gives the year as 1910, but does not know the month. The tests on education could not be carried out very well on account of her great agitation. She remembers the main events of her life but will not go into detail. Tells of having an operation and names some of the sanatoria she has been in, but does not know how long she has been in this institution. She denies auditory and visual hallucinations, and no reaction to them has been noticed. On one occasion she spoke of the bad odors in the room, when none could be detected by others. She has a feeling as if her throat is "blocked up." Delusions of the somatic type are quite prominent, *i.e.*, the feeling of obstruction of her throat. Thinks that food will not go down and on account of this, she sometimes will not eat. Has the idea that there is little of her stomach left, that her intestines are filled up and her rectum

* I am indebted to Dr. Tibbetts for the write-up and discussion of this interesting case. A. H. R.

is tied. She speaks of some terrible wrong that she has done her family, but does not explain. She often remarks after eating—"Oh, what have I done? Oh, I've eaten too much. Oh! Oh! What am I going to do—I've done a very bad thing, I do not know what I am going to do and I owe everybody." Emotionally, as has been said, she is depressed and very agitated, wrings her hands, will not remain quiet in bed long, but tosses about at night and will get up and pace the floor moaning. Her attention is poor because her delusions seem to take up the most of her thought, and questions have to be repeated several times before an answer is received. She has no power of elaboration of thought and a dearth of ideas, almost an amentia.

Physically the patient is greatly emaciated. Pupils react quite well to light and distance. Blood pressure 106 systolic, 62 diastolic. Breath sounds in chest are a little harsh and there is hyper-resonance except at both upper backs down to about mid scapulæ, where there is some dullness. Abdomen negative. The skin, as a whole, is dry. That on the forearms breaks easily and the small blood vessels seem to be friable, so that subcutaneous hemorrhages are quite common when slight pressure is exerted on it. About six weeks ago the skin over the backs of both hands (which had been dry) got much drier than usual and gradually became reddened and thickened, but not hot. It was also somewhat tender to touch. The condition extended from the wrists down to about the second phalangeal joints. It is now desquamating slowly. For about two weeks there has been a low-grade inflammation on the skin of the forehead, which now has disappeared, leaving the skin dry and red.

Deep reflexes lively but equal.

A diagnosis of pellagra seems justified in this case. While the mental picture is not that of the text-book type there are many symptoms present which are in accord with the diagnosis, and the skin changes are quite typical.

Pellagra is a disease characterized by depression and mental confusion with cachexia. It is caused by eating maize or Indian corn which has become mouldy. Corn becomes mouldy through the action of various bacteria and parasites and apparently during its destruction some chemical substance is produced which is the specific cause of pellagra. This specificity is assumed to be true because many of the bacteria and parasites which cause this chemical action have been found in the intestinal tract or skin of non-pellagrous patients, *i. e.*, those who have not eaten infected corn.

Pellagra is therefore probably a disease caused by intoxication from chemical substances which are acquired from infected

Indian corn. It is generally the poorer classes of people who contract this disease, because in some sections of the country corn forms one of their chief articles of food. The disease begins by a feeling of fatigue, and movements are accomplished with great effort; then appears dryness of the throat and stomach, so that the patient has constant thirst; accompanying the fatigue there is depression generally, but sometimes maniacal symptoms may be present. There may be diarrhœa or constipation. In cases where diarrhœa is present there is apt to be some temperature, and these cases run a more rapid course and may present typhoidal symptoms. The mental depression is characterized by many delusions, confusion, impaired memory and orientation and by hallucinations. Physically they may show rigid pupils, increased reflexes and slowness of speech: rarely the reflexes are lost, so that the picture of tabes is presented. The skin symptoms are brought out by exposure to sunlight and begin by a redness which becomes darker in color; later the skin begins to crack and desquamation takes place. Parts of the skin affected are most commonly the face, neck, chest, back of hands and feet. On post-mortem examination there are found changes in the spinal cord and brain, hyperamia and thickening of the meninges, increase of the spinal and cerebral fluids, degeneration of the posterior columns and crossed pyramidal tracts. The posterior columns are more apt to be affected in the cervical and dorsal regions. There may be lesions of the anterior horns and the column of Clark. These cases develop paraplegia. The cells of the nervous tissue affected show the nucleus involved as well as the rest of the cell and the chromatin takes a darker stain than normal. The prognosis is bad, the disease lasting sometimes ten years; remission occurring in the cooler months and symptoms reappearing in the spring. So far the treatment is prophylactic, dietetic and palliative. This patient is receiving arsenic in the form of Fowler's solution, and X-ray applications to the skin lesions. Since the disease picture resembles syphilis somewhat in its cord symptoms, salvarsan is being seriously considered. When diarrhœa is severe, normal saline intravenously and small doses of mercurius corrosivus check it satisfactorily.

The case that is here presented has typical skin lesions of the backs of both hands which came on in the latter part of the spring after some exposure to the sun. While the skin lesions have been confined mostly to the hands, there has been some dermatitis of the forehead. There has been a great loss of flesh, the patient weighing now 70 pounds, the normal weight being 150 pounds. As a rule, she is constipated but has had attacks of diarrhœa, there

is marked depression, some disorientation, and lack of judgment. There are also slightly increased reflexes and a little unsteadiness in gait. Olfactory hallucinations are present. The diagnosis of the case is based on the above symptoms but particularly on the skin lesions.

TREATMENT OF AMEBIC DYSENTERY BY EMETINE HYDROCHLORIDE.

By Alfred J. Zobel, M.D., of San Francisco, Cal.

The writer gives a brief culling from the literature on the emetine treatment of amebic dysentery, and also a few words relative to the drug itself.

He states that in emetine hydrochloride we have a reliable, non-toxic drug possessing a definite specific action; which may be administered hypodermically, and yet which will permit of a sufficient dose being given without causing any depression, nausea, vomiting, or local reaction.

He reports two interesting cases in which the disease was present in one individual for ten, and in the other for fourteen years. Under the influence of emetine, within two or three days amebæ, blood mucus, froth, and foul odor disappeared from the dejections and their number greatly decreased; the racking tenesmus, bearing down feeling in the rectum, the colic, and the abdominal tension, discomfort, and gurgling absolutely ceased.

Proctoscopic examinations revealed the favorable influence of the drug upon the amebic ulcerations. No amebecidal irrigations were employed.

He further reports other cases seen by him in consultation which demonstrate most forcibly the necessity for a proctoscopic examination of the bowel and a microscopic examination of the feces in every instance where a diarrhœa lasts longer than a week even though the patient has never lived in nor visited a locality where the disease is known to exist.

He advises that emetine should be given for at least three or four months at intervals before the patient should be considered free from the possibility of a recurrence, even though he is clinically cured and the amebæ cannot be longer found in the stools.—[*Abstract of a paper presented at the sixteenth annual meeting of the American Proctologic Society.*]

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors.

Reprints furnished at cost.

SPORADIC HOMŒOPATHY IN THE OLD SCHOOL. II.

"The Treatment of Diphtheria with Cyanide of Mercury."

In recent years several eminent men of the old school have expressed their interest in the therapeutic principle *Similia Similibus Curantur*, and have shown a sympathy for homœopathy. The late Dr. Rosenbach was a veritable champion of homœopathy in the University of Berlin. In spite of his achievements in pathological and pharmacological research the fact that he openly declared himself in sympathy with the new school of medicine led to quiet ostracism and indirectly to his untimely death. Von Behring of antitoxin fame has also brought out in his writings the logic of homœopathic therapeutics, but has not hesitated to criticize severely certain discrepancies of the new school in its attempt to put into practice the law of similars. Sir Almoth Wright of London has emphatically remarked upon the close relationship of vaccine-therapy to homœopathy. None, however, with the exception perhaps of Rosenbach, has taken the position of Professor Hugo Schulz, director of the Pharmacological Institute of the University of Greifswald in Germany. Both in his "Pharmakotherapie" of 1898 and in his "Wirkung und Anwendung der Unorganischen Arzneistoffe" of 1907 this author has laid stress on the rationality of homœopathic therapeutics in the most outspoken terms. What he terms "Organotherapie" is nothing more nor less than a modern conception of homœopathy, nor does he hesitate to say so. His most recent monograph is "The Treatment of Diphtheria with Cyanide of Mercury." (Berlin, 1914.)

This is one of the most able scientific arguments in favor of homœopathy that has been penned of late by any medical man including those of both schools of medicine. The author begins

with a discussion of pharmacodynamics in which he briefly explains his ideas on the place of drugs in therapeutics. He then reviews the use of the cyanide of mercury in diphtheria giving due credit to the two homœopathic physicians, Beck and von Villers, for the introduction of this preparation in the treatment of the disease in question. Nor does he refuse to acknowledge the probable efficacy of their doses which were of the sixth centisimal dilution. Following this he cites no less than 554 cases collected from the literature (almost entirely from old school sources), in which the drug was used with satisfactory results both as regards a prompt recovery in mild and uncomplicated cases and as regards a low mortality in severe, advanced and complicated cases. He then takes up the toxicology of hydrocyanic acid and of mercury with special emphasis on the effects on the respiratory tract. A detailed report of his experiments on the action of these two substances in various forms on animals follows, together with accurate provings on healthy human beings. His discussion of the superiority of provings over animal experimentation is as interesting as his consideration of the importance of the individuality of the patient. The proclivity of the epithelial cells of the upper respiratory tract to the cyanide of mercury, and the similarity of the lesions produced by the drug on the cells to the lesions found in diphtheria form the basis upon which he explains the beneficial action of the drug in this disease. He argues that diphtheria antitoxin can only neutralize the free toxin and protect the body cells from further danger, but that theoretically, it cannot have any directly beneficial value on the already damaged cells, nor can it serve even as a protection against the various toxins evolved from the concomitant bacteria in and on the diphtheritic lesion. Antitoxin acts therefore only as a protective which enables the body cells to recuperate their own resistive forces and thus the recovery is in reality due to an active immunity established through the aid of a temporary passive immunity. In other words the actual throwing off of the disease is brought about by the resisting forces of the body and not by the antitoxin. Mixed infections and severe diphtheritic intoxications, therefore, are least helped by this protective power of the horse serum. The cyanide of mercury, on the other hand, by its pathogenesis,—to use a homœopathic term for the sake of brevity,—by its specific action on the cells of the upper respiratory tract stimulates these very cells, damaged and healthy, to greater resistant activity. Thus by affecting the healthy as well as the diseased cells it not only acts in a protective but in a more directly curative manner. Of course where the disease has advanced to a stage where the toxin has paralyzed the cell activity we can then expect no benefit. either from antitoxin or from the cyanide of mercury. He the-

orizes that there is no objection to the use of both the serum and the drug at the same time, although he admits that this sounds contrary to his preachings against polypharmacy, nor does he cite any cases so treated in his monograph. This example might well be followed by certain men of our own school who have attempted to establish the efficacy of vaccine-therapy in cases treated simultaneously with homœopathic remedies and vaccine injections. Disregarding, however, the absurdity of trying to draw valid conclusions in clinical research where polypharmacy is employed, as is recognized by Schulz in his work, we should in justice to the theory of using serum (not a vaccine) in conjunction with a homœopathic remedy refer to the researches of Matthes and Schick reported in a very recent publication.* These authors found that the active production of diphtheria antitoxin in the guinea-pig is not in the least disturbed by the injection of horse serum antitoxin and that it goes on at the same rate.

Schulz advises a .01 per cent or a .001 per cent solution of the cyanide of mercury, a teaspoonful every hour. For the first instance the patient would only receive in the course of twenty-four hours one-half the maximum dose which can be given at one time of this drug.

In these days of upheaval of therapeutic methods, of new serums and then of "better" serums, of new vaccines and then of "better" vaccines, of new specific chemical compounds and then "neo" specifics, we must now and then hit upon something which has come up before. Diphtheria antitoxin is now suffering from an awakened interest in anaphylaxis with the publication of sudden deaths following the administration of horse serum. Not all the old school are esthusiastic about this specific serum. Bourget of Lucerne in Switzerland reports 889 cases of true diphtheria treated in the Canton hospital.† Of these 156 received the serum and 16 died. Of the remaining 733 cases which got no injections only 8 died. We cannot refrain from remarking at this time that those members of the homœopathic school who are so enthusiastic about the latest old school therapeutic methods, those homœopaths for instance who proclaim that it is criminal negligence not to use antitoxin in every case of true or suspected diphtheria, are as tardy in giving up these methods as they are usually in acquiring the proper use of them. Schulz has not hit upon the cyanide of mercury by pure empiricism. He has been led to investigate this remedy through his study of pharmacodynamics, and through

---

* Ueber das Diphtherieschutzmittel "TA." von Behring und Hazemann. Berliner Klinische Wochenschr, May 18, 1914, p. 919.

† Die Therapeutischen Leistungen des fahres 1910. Pollatschek und Nador, Wiesbaden, 1911, pp. 146, 147.

an understanding of the law, "likes are cured by likes," and he admittedly has followed an old rule, "let likes be treated by likes." It is odd indeed that such a masterpiece on the use of a homœopathic remedy in diphtheria should come from a professor in the old school. However if we homœopaths must get our encouragement from those outside our ranks, it is at least gratifying to get such encouragement from one like Prof. Schulz who does not hesitate to give the priority in this case to physicians of the homœopathic school. C. W.

GETTING OUR CASE BEFORE THE PUBLIC.

When the President of the Institute was making his Western tour in May, he addressed a large lay and professional audience in the city of Minneapolis. He preached the gospel of homœopathy, telling what it was, what it was not, and what were its accomplishments. After the meeting a general reception followed and in conversation with one of the prominent women of the city, the wife of a well-known judge, this dialogue took place: The Woman: "Doctor, I used to hear a great deal about homœopathy when I was a girl, but of late years I have heard little of it. Are there many homœopathic physicians in Minneapolis at present?" Doctor: "Yes, Madam, about ten times as many as when you were a girl." The Woman: "Then, doctor, why do we never hear of them?"

A whole sermon could be preached from that text. We are not particularly concerned in hearing about the individual homœopathic physician, but we are deeply concerned in hearing about homœopathy. Why does not the public know as much about homœopathy today as it did a generation ago? The answer is simple: We, the homœopathic physicians do not take the pains to inform the public as did our medical forefathers. Either we are afraid "to speak out in meeting," or else it is considered "bad form" to speak of our medical beliefs. Whatever the cause, the painful fact is apparent, that the present generation, outside of the immediate homœopathic patrons, knows little and cares less of what homœopathy is. Yet in the early days it was the public which fought and won our battles for us, and it is the public today to which we must appeal if we hope to have homœopathy adopted as a generally recognized therapeutic measure.

One naturally shrinks from controversial notoriety, yet it was the controversies between the two schools of medicine a generation ago which interested and eventually educated the public to the point of taking a deep interest in the homœopathic method of treating the sick and thus established a foundation for the existence and perpetuity of the school.

We have, in our desire to avoid controversies in medicine, swung off to the other extreme and maintained such an extremely polite silence that even our friends begin to ask "are there any homœopathic doctors now living?"

There was once a very polite man who quietly choked to death in church rather than disturb the meeting by coughing. He was remembered for his politeness, but nothing more, and even that was a small asset for his widow and children to live upon.

If we continue this polite and dignified silence for another generation we may be remembered for exactly the same thing. No meeting of the American Institute has for years attracted such widespread newspaper publicity as has the recent Atlantic City meeting. At least two hundred newspapers throughout the country printed extended notice of the meeting. We are now before the public as a very much alive body of medical men. Let us for the sake of advancing a good cause, one which means immeasurable beneficence to the public at large, keep there and not settle back into polite oblivion.

It was the "controversial note" in the Institute proceedings which gave the meeting its widespread publicity, and whether that "note" may be deprecated or not, the fact remains that without it we should have received the customary ten line polite notice that "there was a meeting of the American Institute which elected officers," etc. People, like rocks, must sometimes receive a dynamite charge to rouse them up out of their natural habitat and either make them useful or clear the ground for something better.

The published "controversial note" carried with it the information which we were particularly desirous the public should have, namely, that the American Institute had submitted to the American Medical Association a dignified, carefully worked out proposition requesting their co-operation in proving the truth or error of the homœopathic principle of cure. In no other way, and in no better way could this information have been carried to fifty million newspaper readers.

The public today is talking and thinking about homœopathy as it has not done in thirty years. It matters little whether the talk is hostile or friendly. The mere fact that we are talked about is a most encouraging sign. If we now employ that awakened interest in furnishing plain, easily understood information as to what homœopathy is, what it is not, and what are its accomplishments, our day of victory is not at the end of the rainbow, but right here!

D. G. W.

BOOK REVIEWS.

Urinary Diseases, by Stephen H. Blodgett, M.D. Whitcomb & Barrows, Boston, 1914. 126 pages, cloth, price, $1.00 net.

This little book is intended primarily as a text book for pupil nurses, but its contents suggest that the author is frequently outlining the treatment beyond the scope of the duties pertaining to the members of the nurses' profession. It is true that the author does not go into the medicinal treatment to any extent except in the use of sodium-bicarbonate in acetonuria, but he does go at length into the dietetic treatment which, after all, is the chief essential in three of the most important conditions he takes up, namely, acute nephritis, subacute-glomerular nephritis and glycosuria. Consequently the book is well worth studying for the general practitioner who wishes to review the subject; and we may venture to remark that any nurse capable of understanding and retaining the full contents of these pages would indeed be superior to the average physician in the treatment of urinary diseases. Had the author, whose exceptional proficiency in the homœopathic therapeutics of urinary diseases, added something concerning the medicinal treatment, and had he gone into the pathology of kidney diseases, this work would be of invaluable assistance to every physician. As it is the physician must resort to a more complete volume in seeking aid in the differential diagnosis of kidney diseases, and must fall back on the materia medica with its unwieldly mass of symptoms and pathogeneses which to our knowledge has never been put in anywhere near a concise or practical form so far as renal conditions are concerned by any expert on the subject. Would that the author had given to the medical profession such a work, which we may safely say would be of infinitely more practical use to physicians than is this to nurses who are, of course, under the direction of the former.

The first chapter deals in a very elementary way with the anatomy and physiology of the urinary tract. The next three chapters take up the common *tests* capable of being performed by the nurse together with brief remarks on the significance of urinary findings. Chapter five is devoted to a consideration of the diagnosis, dietetics and general nursing of *acute nephritis, sub-acute glomerular nephritis, interstitial nephritis, renal tuberculosis, pyelitis, renal abcess, pyonephrosis and stone in the kidney.* Chapter six is a similar consideration of *bladder diseases.* The next two chapters are a condensed resumé of the author's ideas on the *toxemias of pregnancy* and *pernicious vomiting* with instructions as to dietetics, nursing and the administration of sodium bicarbonate in the presence of acetonuria. The ninth chapter is devoted to *glycosuria* under Dr. Blodgett's classification of four distinct forms.

The second part of the book consists of a "cook book" of recipes for patients suffering from glycosuria, and the third part a compilation of the starch and proteid contents of various food stuffs.

One criticism which we might suggest of the author's treatment is his apparent faith in the clinical antiseptic value of the bichloride of mercury. In the technique for irrigation of the bladder the author writes: "Wash the glans penis or the labia about the urethra with sterile gauze wet with bichloride of mercury solution (1-1,000), then leave the gauze wrapped about the head of the penis or covering the meatus, and held in place by the labia. The catheter, which has previously been rendered sterile either by boiling or soaking in formalin solution and rinsed in sterile water or soaked in corrosive sublimate solution (1-500), should next be dipped in sterile oil or lubricated with one of the sterile lubricants." It will be noted that the author has made three serious omissions in his instructions to the nurse. First, he does not say how long the gauze soaked in bichloride should remain about the meatus; secondly, he neglects to state what strength of formalin solution should be used to sterilize the catheter, and finally, he omits the important instruction as to how long the catheter should be left in the formalin or bichloride to insure sterilization. Regarding the first point we argue that unless the gauze soaked in bichloride re-

mains at least twenty minutes, which in certain subjects may with a 1:1000 solution set up inflammation, the "antiseptic" value of this procedure in doubtful. Given proper time bichloride will sterilize a catheter, but it is high time the medical profession gave heed to the researches of Von Behring. He has definitely shown that bichloride solution, as a mere wash, has no antiseptic value, and that when it comes in contact with mucus, serum or anything which will combine with the mercury the antiseptic value is lost because the precipitation of the mercury, especially in the form of the albuminate, acts as a protection to the bacteria under it and prevents any penetration by the bichloride itself. With the exception of the antiseptic value of iodin on the skin, most so-called antiseptic procedures are valuable only by the cleansing procedure or diluent action accompanying their use. In fact we may safely remark that surgeons in this respect practice just as many fallacies in their art as do physicians in the administration of internal medication. We have dwelled upon this phase of the author's work because we feel that nurses have "antisepsis" instilled into their minds to such an extent that they too often waste time and energy; and we feel that the author of this book has made a serious error in helping to foster this idea in the minds of nurses by omitting certain necessary details, the carrying out of which can alone guarantee the fulfillment or approach of true antisepsis. C. W.

A New Edition of Boericke. Materia Medica with Repertory. William Boericke. Boericke and Runyon, New York, 1913. Revised and enlarged by Oscar E. Boericke. Price $3.50.

This pocket encyclopaedia of homœopathic materia medica has proved its value by passing through one edition after another until it has now reached the fifth. This edition contains 1155 pages on thin paper well bound in leather. The several hundred new pages represent the addition of newly proven remedies and remodelling of the repertory. The book is of value to the beginner and to the advanced student in materia medica, i.e., the experienced practitioner. To the first it gives a digest in useful form whereby the reader is given the spheres of action of each drug, but we do not advise the beginner to confine himself too closely to its pages. He may use it to advantage in preparing for an examination in materia medica, but when he comes to working out cases he should be guided by its repertory to look up the sources from which the characteristics here given are derived, and thus to a better appreciation of the comparative value of the symptoms he is dealing with. Used in this way the book is a great asset to the students' library, and, considering the moderate price, he can ill afford to be without it.

To the advanced student in materia medica the book is a most useful encyclopaedia and repertory for ready reference, especially for bed-side work. Here the reader by his knowledge of the sources and importance of the symptoms given under each drug is able to rapidly refresh his memory on the spheres of action of those drugs to be considered in each case. In difficult cases the more extensive works must be consulted, but as a compact, portable guide this book is to be highly recommended.

Dr. Kilner, London, has invented screens which make the human aura or finer body visible; chemistry has proved that every atom must have its etheric double. It is not possible that these discoveries by scientific men may open the way to an investigation of these finer strata of the human body upon which debauching and stultifying habits and conditions may work a peculiar destruction?

Thirty-Fourth Year of the Ring Sanatorium. Ninth Annual Report of the Arlington Health Resort.

This report contains a number of instructive as well as engaging discussions of a variety of cases which were treated in this institution during the year 1912-1913. Among them are to be found angioneurotic œdema, asthenia with obesity, dementia præcox (hebephrenic) morphinism, postural neuroses, basilar syphilis, etc.

REVIEWS OF MEDICAL JOURNALS.

North American Journal of Homœpathy, July, 1914.

1. *Clinical Experiences with the Nowell Cancer Serum.* Adams, M. J.

The author reports the case of a woman, 46 years old, with a carcinoma which on exploratory incision, proved to extend "from the median line to the right, surrounding the omentum and colon, duodenum and common duct with adhesions in all directions." A section was taken for microscopical examination, but the result of the pathological findings is not given. Six months after the operation Dr. Nowell began his serum injections, six in number. These were followed by definite local reaction and a steady improvement on the part of the patient. At the time of writing this article (which can only be inferred to be sometime in January, 1914), the author states that the patient is in perfect health and that no tumor is noticeable by palpation.

The second case was that of a carcinoma of the pylorus in a man (age not given), upon whom a gastro-enterostomy was performed in September, 1913, followed by only temporary relief. No pathological report is mentioned in this case. In December the serum injections were begun, and up to the time of writing the patient had received four injections and was to receive more. At the time his strength was returning, he was able to do some work on his farm and he was reported to be gaining gradually but constantly.

Finally, the author mentions that at the time of writing he had six other cases, two post-operative carcinomata of breast, one carcinoma of rectum, one of stomach, and one carcinoma of abdomen, where colostomy was obliged to be done for relief. These were all said to be improving. The author's experience with the serum has made him an enthusiastic believer in the efficacy of the Nowell serum.

2. *Induced Pneumothorax in the treatment of Pulmonary Tuberculosis.* Storer, J. H.

3. *Pernicious Vomiting of Pregnancy.* Yeaton, R. J.

A report of one case apparently aggravated by "diet and therapeutic measures" employed in the belief that "the liver and intestinal canal contained the causal conditions." When it was found that she was pregnant the author seems to have looked up "all about it" in Williams and then started in with "tablets containing cocaine," morphia gr. 1-3, saline enemata, with such poor results that he finally performed a curettage, after which the nausea stopped in 12 hours. The uterus was 6-8 weeks pregnant. If the author tried homœopathic remedies, or even the simple remedy shown to be so efficacious by Blodgett, it is not mentioned. The report of such a case, with a few snatches from Williams, can hardly be considered of clinical importance or of interest to readers of homœopathic journals.

4. *Adventitious Aids to Delivery.* Holden, G. P.

5. *Position of Patient as an aid for Rotation and Descent of Fœtal Head.* Abbot, W. H.

6. *A Clinical Experiment in the Treatment of Prolapsus Uteri.* Rink, W. S. Concerning the use of pessaries.

7. Address by Walter Sands Mills.

8. *Pyorrhea Alveolaris, or Riggs Diseases.* Haas, C. J., D.D.S. A very brief review.

9. *Arthritis Deformans.* Hitchcock, F. St. C.

The cheapest, poorest attempt in medical literature we have read for many the long day. A few melodramatic, incoherent phrases, and we come to the end without learning anything about Arthritis Deformans or anything else except the mentality of the author.

Typhoid Pneumonia, von der Luhe, A.

The author, though aware that alcohol is a narcotic, says that whiskey will stimulate the heart, to which we would take exception, had we the space. The author advises in the treatment of this condition the avoidance of alcohol, morphin, poultices, coal tar products and serums. Report of a case treated with homœopathic remedies. C. W.

The Medical Advance, May, 1914

1. *The Science of Cure.* W. H. Freeman, M.D.

An essay written for propagandistic purposes. Among the stated special advantages of homœopathic treatment and elsewhere in the paper are found numerous, rather extravagant assertions which are unjustified because they are really unproven. Such statements, unless based upon definite, scientific, *controlled* experiments, are unwarranted. Usually they originate from personal convictions which are always unsatisfactory when coming from one who has a thesis to prove because they strongly tend to be sadly warped. As an example of unproved assertion we quote the following: "Cancer, tuberculosis, insanity, chronic kidney trouble and other fatal forms of chronic disease seldom or never develop in persons who have previously had the benefit of homœopathic treatment." "Vomiting, indigestion, miscarriage, dropsy, kidney disease, convulsions and other troubles of pregnancy can always be controlled and usually prevented by homœopathic treatment." We are in hearty sympathy with the statement that recovery following forcible suppressive measures is only an evidence of the strong recuperative powers of the patient.

2. *Alum in Foods.*

This is a review of the findings of a board of investigators, assisting the U. S. Dept. of Agriculture. In the usual small quantities found in alum baking powders, the board concludes that the chemical is harmless to man and not deleterious to the quality of the food.

3. *Sarsaparilla.* J. B. S. King.

4. *Convulsive Fits in a Young Child.* T. J. Skinner, M.D.

A brief report of one case which recovered after one dose of *causticum* 15m.

5. *Hexamethylenamini.* J. B. S. King.

[Reviewer's Note.] A short, elementary consideration of this misused drug. In our study of the literature, we have never yet found any authoritative statement that the drug will make a alkaline urine "clear, acid and bland." We would suggest that the sentence—"hexamethylenamine has been found useful wherever any cavity of the body or any inaccessible organ is infected"—would be rendered more veracious if the word "has," be replaced with the phrase "is *said* to have." Urotropin depends for its antiseptic action solely upon one of its decomposition products, formaldehyde, which is liberated only in an acid medium.

In the April number of the *Medical Advance,* under the perhaps appropriate caption "Miscellaneous," we note a few brief paragraphs of somewhat objurgatory comment relating to the *Gazette's* review of an article entitled "Basic Materia Medica," which was published in the *Medical Advance,* January, 1914. The *Gazette's* "well-founded criticisms" were directed toward certain statements contained in the article in question; hence the quasi-apologetic editorial remarks are seemingly unsubservient. However, we are chiefly concerned with the "five inches of small print" in a medical dictionary which is cited to support the contention that the *Gazette* is in error regarding the distinction between the words "tuberculous" and "tubercular"—words which the *Advance* claims *"are* synonymus."

If the *Advance* will scrutinize carefully the writings of eminent and scholarly medical authors, notably in the proceedings of the Sixth International Congress on Tuberculosis, it cannot fail to note the highly uniform and scrupulous discernment with which those authors employ "tuberculous" when referring to lesions or conditions associated with the *Bacilius tuberculosis,* and "tubercular," when referring to nodes or tubercles or "small knoblike excrescences," whether or not caused by the tubercle bacillus. Thus, *tubercular* leprosy, although it has nothing to do with tuberculosis, is so called because the lesions produced by the *Bacillus leprae* resemble tubercles or nodules. A *tuberculous* family history may argue a predisposition toward tuberculosis; the *Bacillus tuberculosis* being regarded as a potential factor. Inasmuch as *tubercular, tuberculate, tuberculose and tuberculoid,* signify resemblance to a tubercle, it would seem proper and necessary for definite-

ness of expression that some adjective—the remaining one being *tuberculous*—be reserved to convey the meaning *affected with, or of the nature of, tuberculosis.*

Though more or less academic this discriminatory attitude is not inconsequential, because exactitude of expression is a positive desideratum obtainable only by means of precise definition. Whether or not this distinction is accepted by smug conventionalists is a matter of little moment.

S. B. H.

REGISTRATION OF BONDS

Of great interest to the medical profession is a bill recently signed by the Governor, exempting certain bonds from taxation upon the payment of a registration fee of $3 per $1,000 bond. This, without doubt, is one of the most important pieces of legislation in recent years. In brief, the act provides that where a bond is secured by mortgage on tangible property, located within or without the state upon which property tax has already been paid, the holder may have his bond registered as exempt from taxation for one year upon the payment of 30c for each $100. This act will go into effect August 6, 1914.

The direct application of the new law gives this result: a 5 per cent bond of the specified class bought at par will have a net yield of 4.70 per cent taxes paid, there being a deduction of $3 per bond from the $50 annual coupons, or $47 income per annum. As the average tax rate in Massachusetts is from $18 to $20 per $1,000 and this new measure will reduce the assessment to $3, the importance becomes immediately apparent.

It is thought that this new law will prove of inestimable benefit to the Commonwealth. Somewhat similar legislation is operating in other states with marked success. This law should tend to prevent taxable property leaving the state, and it is only natural that a citizen would gladly pay $3 per thousand rather than $18 or $20, as in the past.

Although the uncertainty as to the constitutionality of this measure may deter many people from making a declaration of their holdings at the outset, there will, undoubtedly, be a great number who will act affirmatively, especially trustees, inasmuch as their trust holdings are, in most cases, already fully disclosed to the state authorities.

This law should be of especial interest to physicians who heretofore have been at the mercy of the local tax assessor.

COMMONWEALTH OF MASSACHUSETTS.
AN ACT

To Provide for Payment of a Fee upon Presentation of Certain Bonds for Registration.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. A bond secured by mortgage on tangible property situated within or without the commonwealth which is subject to taxation wherever situated and which is there actually taxed shall be exempt from taxation within the commonwealth, if the fact of the taxation of such property is determined by the tax commissioner and the bond is registered as hereinafter provided.

Section 2. The holder of any such bond may present the same to the tax commissioner with a statement in such form as the tax commissioner shall require, describing the mortgage securing the same and the property covered by the mortgage, together with a fee at the rate of thirty cents for each hundred dollars of the par value of the bond. If the tax commissioner finds that the said bond is secured by mortgage upon property which is subject

to taxation and which has actually been taxed during the year prior to such statement, he shall register the bond as exempt from taxation for one year from the date of such registration and shall affix to the bond a certificate to that effect, and such bond shall not be taxed during the said year. Any such bond shall be exempt from taxation in any succeeding year upon registration on the same terms and conditions as above specified.

SECTION 3. One-half of the fees for registration of bonds as herein provided shall be distributed, credited and paid to the several cities and towns in which, from the said statements or other evidences, it appears that such holders of bonds resided on the dates of said statements. If such bonds are held by co-partners, guardians, executors, administrators or trustees, the proportion of fees corresponding to the amount of bonds so held shall be credited and paid to the cities and towns where the bonds would have been taxed under the provisions of clauses fourth, fifth, sixth and seventh of section twenty-three, and of section twenty-seven, of Part I of chapter four hundred and ninety of the acts of the year nineteen hundred and nine and acts in amendment thereof. Nothing in this act shall be construed as affecting the provisions of sections sixteen, seventeen and eighteen of Part I of said chapter four hundred and ninety, and acts in amendment thereof, relative to the taxation of mortgages on property within the commonwealth.

TREATMENT OF DIPHTHERIA.

The *Cosmopolitan* for April contains a scholarly article entitled, "Why Vivisection," from which we take the following:

"Take diphtheria anti-toxin, for instance. The mortality percentage has never been as low for anti-toxin as it has been for other remedies. Dr. Newmann, of Potsdam, found that, in his private practice, without serum there was an average of only 1.6 per cent mortality as against 15.4 per cent in the city infirmary where serum treatment was used. Leuddecken, using cyanide of mercury, reported a mortality of 1.2 per cent. Hulol and Goubeau, employing per chloride of mercury, report a mortality of 4.7 per cent. Kastorsky, using an alcoholic solution of menthol, treated thirty-seven successive cases without death. The latest reports of Metropolitan Asylums Boards, England, show: Without anti-toxin (in 583 cases) mortality 1.88 per cent; with anti-toxin (in 4839 cases) mortality 10.18 per cent."

The mortality of diphtheria in the homœopathic school if medicine where the above mentioned drugs have always been used has never been as great as wtih anti-toxin. If the case is seen early the disease is usually aborted.

THE COST OF PASTEURIZING MILK.

With a properly designed and a properly operated plant, the average cost of pasteurizing milk is $0.00313 a gallon, and of cream $0.00634 a gallon, according to tests recently conducted by the U. S. Department of Agriculture. These tests also show that the "flash" process, by which milk is raised to a temperature of 165° F. and kept there for a moment only, is more expensive than the "holder" process, in which milk is maintained for 30 minutes at a temperature of 135° to 145°. The "holder" process requires 17 per cent less heat than the other, and in addition, there is a saving on the expense of cooling. For hygienic reasons, also, the Department recommends the "holder" process.

Many milk plants and creameries, it was found, do not attempt to make any use of the latent heat in the exhaust steam from their engines and steam driven auxiliaries. This heat would be sufficient, in many cases, for all the pasteurizing done in the plants, if it were properly utilized instead of being permitted to go to waste. When exhaust steam is used, it is calculated

that for every 400 pounds of milk pasteurized per hour with it, one horse-power is taken from the boiler load, with a consequent saving in fuel cost.

Another common source of waste was found to be the faulty arrangement of apparatus and leaky piping. The loss from these causes may run as high as 30 per cent of all the heat required, a loss that can be reduced to negligible proportions by proper arrangement. The use of the regenerator, in particular, by which a large portion of the heat in the pasteurized milk is transferred to the raw product, is also an important factor in securing maximum economy.

In considering the cost of pasteurizing, the investigators estimated the life of the necessary apparatus at four years, and the annual depreciation, in consequence, was figured at 25 per cent. This is due to the fact that the whole dairy apparatus must be taken apart after each operation in order to give it a thorough cleaning. This necessarily results in rough usage. The mechanical equipment, such as the engine, boiler, shafting, etc., has, on the other hand, been considered as depreciating at the rate of only 10 per cent per annum.

In these tests the results of which are contained in Bulletin 85, the investigators have confined themselves entirely to the engineering features of pasteurizing, their object being to ascertain as closely as possible the necessary cost of the process. The hygienic and sanitary aspects of the question are covered in other publications of the Department of Agriculture.

CURRENT TOPICS.

More Women Than Men.

Some interesting figures are obtainable as the result of the 13th decennial Census about to be issued by Director Durant of the Bureau of the Census Department. It shows that there are about 55,000 more women in Massachusetts than men.

In the total population of the State there are 1,655,248 males and 1,711,-168 females, or 96.7 males to 100 females. In 1900 the ratio was 95.1 to 100. Among native whites the ratio is 95.3 to 100; among the foreign-born whites, 99.5 to 100. In the urban population there are 96.2 males to 100 females and in the rural, 103.3.

Of the total native population—that is, population born in the United States—80.7 per cent. were born in Massachusetts and 19.3 per cent. outside the State; of the native white population, 18.8 per cent. were born outside the State, and of the native negro, 53.1 per cent. Of the urban native population, 19.4 per cent, were born outside the State; of the rural native, 18.2 per cent.

NO GRAMMAR FOR HER.

In a Fort Scott school the teachers gave orders for all pupils to buy a certain kind of grammar, and bring the book to the class the next day. When school started one little girl walked to the front of the room and carefully laid a note on the teacher's desk. She picked it up, rather surprised, but she was more surprised when she read the following note: "I do not desire that mattie shall ingage in grammar, as I prefer her to ingage in more useful studies, and can learn her to speak and write proper myself. I have been through grammars, and can't say they did me no good. I prefer mattie to ingage in German or drawin' and vockal musich on the piano."—*Fort Scott Tribune.*

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX SEPTEMBER, 1914 No. 9

ORIGINAL COMMUNICATIONS.

STUDIES ON MALIGNANT TUMORS.*

A. An Experimental Investigation of the Etiology of Carcinoma.

B. An Experimental Study of Immunity and Its Bearing upon the Treatment of Carcinoma.

By Howard W. Nowell, M.D., Associate Professor of Pathology, Boston University School of Medicine.

The study of malignant tumors, ever a field of active research, has received in recent years a steadily increasing impetus through the augmenting prevalence in civilized lands of the numerous growths of this character. Heredity, which in the case of many of the infectious diseases, seems to produce a species of racial immunity in the later generations, here apparently operates in the opposite sense, transmitting a predisposition to and susceptibility of invasion by these foci of morbid cell activity. While the increase in the death rate of adults from this cause may be due in part to the lessening significance of other and formerly more potent causes of mortality, there is none the less the best of statistical evidence that absolutely as well as relatively cancer is increasing in frequency. When this fact is coupled with the consideration that beyond the improved mechanical efficiency of surgical procedure, no compensatory development in the treatment of the disease has taken place, the vital interest of the problem is at once manifest. While an exact and definite knowledge of the etiology of a morbid state is not always a prerequisite for its successful treatment, none the less, the positive determination of an etiological factor could exercise only a helpful influence on the solution of the major problem. A brief review of the numerous theories of cancer causation may be permissible at this point. No attempt need be made at this time to give even a partial review of the extensive literature of this field, but a short statement of the more generally accepted views may aid in the development of the thesis here supported.

*Read before the Homœopathic Society of the County of New York, Academy of Medicine, Apr. 9, 1914.

I. Theories of Cancer Etiology.

It may be said at the outset that of all the very numerous theories of cancer causation not one may be said to deal with the problem in its entirety, but only with one or more phases of the mechanism of cancer production. As the one or another aspect of the complete question has presented itself as the most significant feature to the individual investigator, so the resulting hypothesis has dealt chiefly with that particular manifestation. From the large number of these theories based upon the more or less conflicting data of the very many statistical and experimental investigations, mutually harmonious conceptions may be united to form a more coherent and general explanation.

For the sake of simplicity, the majority of the various theories may be divided into two groups; namely, that assigning the cause to bacterial or parasitic origin, and that based upon biological or chemical considerations. Naturally, no exact line of demarcation exists between the two groups or between the possible subdivisions of each group, as the attempts to reconcile the many and mutually contradictory data lead to invasions of each into the territory of the other. Recognizing, then, the limitations of any scheme of classification, some of the individual views may briefly be reviewed.

To the first class belong the long series of attempts to isolate some specific micro-organism, whether bacterium or protozoön, attempts which up to the present, at least, have failed to demonstrate conclusively any specific connection between the numerous organisms exhibited and the establishment of the morbid process. In the light of the results of the searching investigations of Doyen's "micrococcus neoformans," for example, his contentions would seem to be wholly without foundation. Very recently Schmidt has announced the isolation of a specific parasite, but until more definite information is at hand, judgment must be suspended. The assumption of the existence of an ultramicroscopic and hence at present not demonstrable organism would seem to have dialectic rather than scientific warrant.

The theories grouped under the second heading naturally offer a far greater diversity. For illustration, the theory of Thiersch and Waldeyer postulates an equilibrium between the epithelial and sub-epithelial tissue, each mutually influencing and controlling the growth of the other. With advancing years this equilibrium is destroyed, the inhibiting function of the connective tissue becomes impaired, and epithelial proliferation progresses unchecked. Again, Cohnheim's theory of "embryonal residues" assumes the existence of displaced or residual cell masses which under the influence of unexplained stimuli take on malignant

characteristics. V. Hahnemann regards the tumor cell as one in which the powers of differentiation and of growth inhibition have undergone a simultaneous and interdependent impairment. This so-called anaplastic tissue requires some external stimulus to exhibit the characteristics of tumor growth. Ribbert essentially combines, amplifies and extends all of the preceding hypotheses in his summary that "Carcinoma arises from a subepithelial inflammation which, produced by products from the epithelium, diminishes the differentiation of the latter and augments its power of growth." Somewhat remote from the preceding, the gametoid theory of cancer offers a certain measure of evidence in its own support.

Turning to the more definitely chemical theories, several of which at least, are susceptible of a partial combination with the foregoing, the work of Edel presents itself. Here the assumption is made that the blood stream under normal conditions contains substances which exercise an inhibiting action upon epithelial proliferation. When through some cause these substances diminish or disappear, unchecked proliferation results. In other words, the impairment or removal of the normal inhibiting agent precedes the tumor development. The evidence derived from such modes of treatment as are based upon this theory would seem, at present, to fail of confirmation. In the opposite sense to the foregoing is the theory of Loeb, based upon hormone production and the several other analogous hypotheses, all of which presuppose the existence of some stimulating substance in the blood stream through the agency of which the epithelium is activated to uncontrolled growth. The "attraxins" of Fischer belong to this group.

Another hypothesis of chemical nature is that advocated among others by Ehrlich, which presupposes an affinity for nutritive substances on the part of the tumor cells in excess of that shown by normal epithelium. This greater anabolic power would produce disproportionately increased growth. A final subdivision of this group is made up of those theories based upon a poverty of nutrition in one or another essential constituent of the completely balanced dietary. Either a direct lack in the food ingested or a failure on the part of the organism to assimilate the nutriment offered for its sustenance could produce this specific inanition. The evidence adduced in support of these theories is largely statistical and when it deals with certain groups of so-called occupational cancer, at least, is equally susceptible of another interpretation.

As was originally stated, this does not purport to give an exhaustive review of the very large number of theories that have been offered. A few only are considered, but these include the

hypotheses in support of which the weightiest evidence has been offered. While it is obvious that none of the theories thus briefly outlined offer a wholly adequate explanation of the causation of malignant tumors, it is equally evident that some few of the hypotheses advanced array a far greater amount of substantiatory evidence than do certain of the others. A consideration of the facts upon which these conflicting theories are based gives help in assigning to each its proper weight and in the formulation of an amplification of the more probable.

II. General Considerations.

A careful study of the potential causes of cancer elicits three factors which may be regarded as definitely proven; namely, heredity, advanced age and irritation. The first consists probably only in an inherited disposition or diathesis, a certain weakness or vulnerability of the tissues which, however, of itself does not suffice for the development of carcinoma.

The second factor, namely, that of old age, cannot be so summarily dismissed. It is a well-authenticated fact that these tumors are found most commonly in individuals in the years of waning activity. That is to say, the appearance of malignant growths is synchronous with the marked metabolic changes associated with the other retrogressions of advancing years. With the diminution of the metabolic one anticipates a similar decrease in the purely excretory functions. So long as the change in one parallels that in the other, the equilibrium of the earlier years is maintained. But if through some cause the excretory function should suffer a more rapid impairment, an accumulation of waste products in the system would inevitably result. Such accumulation could operate only unfavorably upon the general organism and not impossibly might produce either directly or indirectly a morbid activity in given groups of cells.

On the other hand, advanced age can be considered primarily as of moment only in favoring carcinomatous development. Should the previous speculation be correct, there would remain unexplained the antecedent condition upon which the disproportionate impairment of the eliminative function would depend. That this could not be an invariable attendant of active life is obvious, since otherwise all aged people would exhibit malignant growths. Another reason for regarding old age as contributory rather than directly causal is to be found in the appearance of malignant tumors in the young. While these in some instances might duplicate the possible disturbed metabolic and excretory equilibrium of the aged, there remain a significant number of cases where this condition could not obtain. Leaving this point

for the moment, the third and final factor, irritation, may be considered.

The validity of the belief in this causative factor may be regarded as firmly established partly by histological observation. Antecedent inflammatory disturbances, ulcerative processes and cicatrices, continued and oft-repeated chemical and mechanical irritation of certain portions of the body are certainly in many cases responsible for the irritative inception of carcinoma. In one group is found the paraffin, petroleum, arsenic and aniline cancers of the workers in these respective industries, the scrotal cancer of the chimney sweep and the facial carcinoma of sailors, noted by Unna. The so-called Kangri cancer, and that of Bilharzia disease, furnish striking examples of the influence of a limited and specific source of irritation. Smokers' cancer and the carcinomatous development in the leucoplakia patches of the syphilis also show the probable genetic action of long-continued irritation, as does the common scar cancer. Perhaps the most striking example which can be cited is to be found in the numerous cases of carcinomata arising from X-ray burns.

Now it is generally conceded that many of the malignant growths are primarily of traumatic origin. Traumatism must be thought of it in its broadest sense as anything that tends toward irritation. Not only in the obvious sources of irritation cited above, where the peculiar conditions permit of a ready association of cause and effect, but also in tissues which deviate in structure from the normal arrangement of the affected region of the body, or are incompletely developed, or are in a state of involution, the production of irritation, and thus trauma, may also be anticipated.

A question which arises in the etiological discussion is whether in the beginning of carcinoma development, proliferation of the epithelium or change in the sub-epithelial structure is the primary phenomenon. If the Thiersch hypothesis be accepted, it may be assumed that both factors in their intact state are interdependent, and so influence each other that they mutually inhibit proliferation. If, from any cause, this equilibrium is disturbed and the restraining influence of one tissue thus suspended, the other tissue begins to grow and a typical epithelial proliferation will take place. In order to elucidate this and other questions, many attempts have been made to produce carcinoma experimentally, or to transplant human carcinoma into animals, but usually with little or no success. In this connection there was published several years ago an experimental study by Borsch, of Vienna, which is of great interest in so far as it appears to indicate that a way has been found by which cutaneous carcinoma may

with certainty be produced experimentally in animals. Borsch influenced productive processes such as wound healing, inflammation, etc., by continued irritation of a physical and chemical nature, and demonstrated that such long-continued irritation prevented their normal progress. Consequently an increased and more rapid formation of cellular elements occurred, whereby the individual cells became more and more unstable. In this manner alterations corresponding to cutaneous carcinoma were obtained.

Granting, then, that irritation has been demonstrated to be a factor in the causation of malignant tumors, the problem still fails of solution. It might be argued that the trauma or irritation might lower resistance locally and thus offer a focus for bacterial or parasitic invasion and development. Equally well might it be assumed that such irritation was the genesis of abnormal cell activity in the course of which toxic substances would be formulated. These might conceivably act in either of two ways; namely, by inhibiting the function of the nerve centres controlling cell growth or by acting directly upon the subepithelial structure, inhibiting its restraining effect upon the epithelium and thus disturbing the normal growth equilibrium. In either case, the resulting abnormal increase in the rate of proliferation would induce an extension of the traumatic condition which was the original cause. By an analogous process of reasoning, the potential influence of old age in the promotion of tumor growth can be traced. It might be argued that the gradual impairment of the excretory function operated to produce irritation either by permitting an accumulation of possibly harmful wastes or by failing to insure the elimination of toxic substances arising from some traumatic origin. The heterotrophic proliferation observed by Lubarsch in the aged might well be regarded as causal or contributory. In any case, the abnormal rate of epithelial growth would, as has already been pointed out, extend the traumatic area; the condition would thus be self-propagating, and its rate of progress be limited only by such factors as the rapidity of elimination or destruction of the toxic substance or substances, the resistivity of the nerve centres as determined by general bodily health and other similar antagonistic effects. Further, such a hypothesis would serve as well to explain such sequelæ as metastatic growths and the assumption of malignancy by primarily benign tumors as would the other existing theories.

But if this theory of the origin of carcinoma be correct, then the tissues undergoing these pernicious changes should contain the toxic substances responsible for their continued growth and propagation. A failure to isolate such substances would not

wholly negative their existence as they might readily be compounds of such intense toxicity that the observed effects could be produced by quantities far less than could be detected by any chemical means. If, however, appreciable amounts of the toxin or toxins were present, they should be susceptible of isolation. An investigation of the chemical theory thus outlined must, of course, find its starting point in an attempt to demonstrate the presence of such compounds in the substance of malignant growths.

III. Preparation of Material.

From cases of operable tumor, when a diagnosis of carcinoma had been positively established both by clinical and microscopical findings, the freshly extirpated growth was carefully freed from the fat and extraneous tissue adhering to it. Experience shows that tumors of small size and those in which the degenerative changes incident to "breaking down" are least manifest, are best suited to the purpose. This fact is in accord with the outlined theory, as the toxic substances should be present in largest amount in those cells exhibiting the maximum of activity; namely, those in the tumors showing the most vigorous growth. The tumor substance was then cut into very fine pieces, using a clean bowl and knife, the resulting mass placed in a clean vessel, preferably of porcelain, and extracted with water at the boiling temperature for three hours. Deep vessels of Berlin porcelain were found to be desirable for this purpose. The mass was then filtered to remove the exhausted residues, the clear filtrate containing those portions of the tumor which were soluble in water. This filtrate was rendered slightly acid with sulphuric acid of the highest purity, and again boiled to coagulate the soluble protein substances, the coagulum then being removed by a second filtration. The slightly acid, aqueous filtrate was next exactly neutralized with barium hydroxide solution. (As an indicator phenophthalein was used; and to avoid contamination of the solution the end point reactions were carried out on porcelain plate.) The barium sulphate precipitate was next completely removed by filtration. (If the neutralization takes place in a solution heated nearly to the boiling point, the tendency is for the barium sulphate to precipitate in the crystalline form. Under these conditions it filters out far more cleanly than can be attained by a cold precipitation. Under the most favorable conditions it is the most unsatisfactory inorganic substance which we are called upon to remove from a solution, inasmuch as it betrays a tendency to assume the colloidal form, and under these conditions separates slowly and imperfectly.)

The exactly neutral barium-sulphate-free, aqueous solution was next concentrated, (it seems probable that this step could be carried on with advantage by evaporation under diminished pressure) the resulting syrup-like substance extracted with absolute alcohol in liberal proportion, and the alcoholic extract filtered from the insoluble residue. This completes the separation of the protein materials, all of which are completely insoluble in alcohol. The alcoholic extract was freed from the solvent by evaporation. The residue from the alcoholic extraction was next thoroughly extracted with ether. This ethereal extract should contain all of the fat, and be rejected.

The residue insoluble in ether was now dissolved in water, and the solution rendered strongly acid with phosphoric acid. For this purpose the aqueous solution of ortho-phosphoric acid is probably the best suited, as this is thoroughly hydrated and consequently exercises no de-hydrating action.

The acid aqueous solution was now extracted with ether and the ethereal extracts saved, while the aqueous residues were rejected. The ethereal extract was removed by distillation and the residue again dissolved in water. To this aqueous solution, which is acid in reaction, an excess of very pure zinc oxide or zinc carbonate was then added, and the whole mass boiled for at least thirty minutes.

Removing the undissolved zinc oxide by filtration and discarding it, the clear alkaline, aqueous solution was then allowed to evaporate spontaneously. Under these conditions the crystals gradually formed, and were readily removed from the solution. The crystals were purified by successive recrystallizations from water, and these in their final purified form were the basis of the subsequent investigations. Up to the present time their exact nature is not known, and extensive and exhaustive investigation will certainly be required to determine their exact chemical constitution, if, indeed, the problem be one ultimately susceptible of solution. Whatever the exact chemical constitution of this compound may be, this much is evident, that the substance or substances secured by this method of procedure have been freed from all organic life, and any results obtained by its use must be referable to its own inherent chemical nature and not to the presence of organized life in any of its manifold forms. The experiments carried out with this material may now be considered in detail.

IV. and V. General and Specific Toxicity.

The crystals prepared by the method just outlined show a sparing solubility in water—about 4 parts in the hundred—

and for convenience sake carefully sterilized aqueous solutions were used in all the experiments to be described. Having isolated a substance from the malignant growths, the next step was to determine its physiological action and the form in which it was manifested. Rabbits were selected for the initial experiments as they are not normally subject to tumor growths—a condition which of course forbade the use of mice and rats—and further, so far as the author has been able to learn, had never given positive results in experimental tumor production. On the contrary, they seem to show a high degree of resistivity to pathogenetic influences along this line. Eight healthy animals were selected for the first experiment; four for injection with the solution, and four to be used as controls. Each member of the first group was subjected to the influence of the substance, the condition of experiment with each showing some minor variations, but all following the same general plan. At the time that the regular injections were made on the experimental animals, sterile salt solution was injected under precisely the same conditions into the controls. The results obtained with the first group may be briefly considered as a whole: each of the four received an injection of 0.25 c.c of the sterile 4 per cent solution corresponding to 10 milligrams of the active substance, the operation being performed under strictly aseptic conditions. In each case a local disturbance developed at the point of inoculation, which gradually increased in severity. In addition there developed a general constitutional manifestation which included an increase in temperature, with much restlessness, followed by a somewhat lethargic condition with an apparent dullness of all the senses. The constitutional symptoms persisted for perhaps 24 hours, after which three of the rabbits were restored to their normal activity and apparent good health for a period of several days. The fourth rabbit (No. 3 of the series) developed a septic condition, probably as the result of faulty technique, and died at the end of the third day. After the period of several days of apparent good health, a gradual change was observed. The rabbits slowly lost in weight; there was a progressive diminution in activity and bodily strength; they became anæmic, as evidenced by the pallor of the membranes; in short, a general cachectic condition developed, which terminated fatally in less than three months. The local disturbance in the meantime showed induration, with a continuous increase in area. In one instance there was marked breaking down, attended by the complete destruction of a large amount of tissue. In each instance the rabbit presented the clinical picture of malignant disease, the degree of the development of the specific manifes-

tation varying with the site of the inoculation. The individual case histories may be considered in brief:

1. This rabbit, a healthy adult of about 2200 grams weight, was injected four times at intervals of ten days, the total dosage being 80 milligrams. The site of these injections was the peritoneal cavity. This rabbit, after the illness described above, died on the forty-eighth day. Autopsy showed a general peritonitis with marked softening of the cavity contents. No positive carcinomatous foci were discoverable.

2. This animal was a rabbit weighing 1800 grams. Two subcutaneous injections of ten milligrams each were made into the abdominal wall at an interval of ten days. At the point of inoculation a growth developed, which ultimately attained a diameter of 5 centimeters. There was complete loss of hair over the region, marked thickening of the skin and induration of the edges of the growth. The usual constitutional symptoms were observed. Death resulted on the sixty-fourth day. Autopsy showed the above microscopic findings with a slight increase in the mesenteric and peritoneal glands. Microscopic examination of these tissues showed a marked increase in the epithelial cells, with invasion and destruction of the connective tissue. The glands were the seat of an acute inflammation.

3. As has already been stated, this animal died on the third day in a septic condition. The tissue at the point of inoculation showed marked inflammatory changes upon microscopic examination.

4. This animal was a rabbit weighing 2400 grams. But one inoculation of 10 milligrams was made, the seat of the injection being the mammary gland. This animal showed local symptoms similar to those exhibited by rabbits 1 and 2, the degree of involvement, however, being far greater than in the other cases. At the end of the twenty-fourth day a portion of the gland was removed and this on microscopical examination showed the characteristic features of malignant disease. The wound caused by the removal did not heal, and the tumor development progressed with increased activity. There was much destruction of the tissue surrounding the wound accompanied by little, if any, secondary infection. The constitutional symptoms were marked throughout, and the rabbit died on the seventy-eighth day after the inoculation. Autopsy showed the skin surrounding the focus of the growth to be involved; there was a marked venous engorgement throughout the body, and an increase in the exudate in all the serous cavities. The mesenteric and peritoneal glands were enlarged, and under the microscope gave unmistakable evidence of metastases.

The results obtained from this preliminary experiment indicated that the tumor extract possessed: first, a marked toxicity, and, second, the power to reproduce in healthy tissue growths similar to that from which it was itself derived. In the course of the subsequent experiments the latter point was still more strikingly illustrated, and these observations may well be described at this point. Adopting serial numbers, we may consider the individual animals:

5. This animal was a large female Belgian hare of about 2800 grams weight. The first injection was given subcutaneously in the abdominal wall, the amount being 0.1 c.c., corresponding to 4 milligrams of active substance. At the end of ten days a second injection was made of 0.25 c.c., or 10 milligrams, in other respects similar to the first. Still ten days later a third injection was made, this time of 20 milligrams of active substance. At the time of making this injection it was noticed that a hard swelling had appeared on the under side of the neck. As this gradually increased in size, but one more injection, this time of 10 milligrams, was made at the end of the next ten-day interval. Thus, in thirty days the hare received 1.1 c.c. of solution, corresponding to 44 milligrams of the active substance. From the time of its first appearance the tumor gradually increased in size and at the time of death it had become as large as a hen's egg. During the period of tumor growth the animal exhibited the typical cachectic condition which had been shown by the earlier rabbits, and the general constitutional disturbance ended fatally on the fortieth day after the first inoculation. The post-mortem showed the large tumor to be a typical carcinoma involving the thyroid. In addition, the mediastinal and mesenteric glands were covered with carcinomatous foci varying in size from a pin head to a pea. The liver was the seat of a number of similar tumors, and the pleural cavity showed numerous patches of incipient inflammation. The general picture was that of a typical miliary carcinomatosis and the histological examination demonstrated conclusively the malignant character of the growth.

6. This rabbit weighed 2800 grams. The general method of manipulation was the same as in the preceding case, the animal receiving 1.1 c.c. in three injections within a period of thirty days. This animal showed the characteristic progress of a general cachexia, the main macroscopic lesion being a tumor which developed on the side of the head under the right eye. Before death intervened this had grown to a very marked extent, involving the nose, cheek and orbit of the eye. The tumor gradually broke down with much loss of tissue, the general progress being highly typical, and the microscopic findings wholly confirmatory. The

post-mortem showed the establishment of a large number of metastases, especially in the mesenteric glands.

7, 8 and 9 all showed similar results, the focus of the main lesion varying, although in every case the injections were made subcutaneously in the abdominal wall. In one the tumor developed on the left foot, and progressed to the point where the foot and first joint entirely sloughed off and the bones of the second joint projected from the stump. The two others showed head tumors, but at different points, one appearing on the lower left jaw, while the other was beneath the left eye.

These experiments in connection with the histological findings, leave no question that the substance prepared by chemical means and in a manner which wholly excludes organic life, is capable of producing a general carcinomatosis when injected under sterile conditions into healthy adult rabbits.

During the course of the experiments just detailed, a second series was carried out to determine the character and degree of general toxicity of the tumor substance. For this study both guinea pigs and rabbits were used. With the former it was found that 0.5 c.c. of solution, corresponding to 20 milligrams of active substance, when injected subcutaneously into a 250-gram guinea pig, would produce death in about two hours. The general course of the symptoms was as follows: Time varying after injection, depending somewhat upon size of animal, a general tetanus developed, in many of the cases there being a well-marked trismus and breathing in paroxysm. The spasms were both tonic and clonic.

Autopsies performed upon several of the guinea pigs showed a marked venous engorgement throughout the body with increase in quantity of fluid in all the cavities. This latter was especially marked in the peritoneal cavity where some 10 c.c. of a brownish exudate was found. This exudate, when carefully removed under strictly aseptic conditions and kept in a sterile tube, would produce an intoxication in a healthy guinea pig similar to the one described on the injection of a quantity not exceeding 0.2 c.c. The increase in the toxicity of this exudate over that of the original substance will be considered at a later point in this paper.

Paralleling the experiments with the guinea pigs, a number of studies were made on healthy adult rabbits. The subcutaneous injection of 0.5 c.c. of the solution produced an intoxication in the rabbit, differing only in degree from that of the small animal and ending fatally in about 12 hours. It will be noticed that the lethal dose is identical with that used in the first experiments in which only slight primary effects were noticed. This is explained by the fact that the material used in the earliest experi-

ments was the first prepared, and consequently at a time when the experimental technique was in process of evolution. That it was less pure than the succeeding preparations was evidenced by the fact that the crystals had a distinct brownish color, while all the later samples were comparatively white. It is certain that the specific toxicity of the sample was lessened by the admixture of impurity, the 4 per cent solution of necessity containing proportionately less of the toxic substance. Further, it is not impossible that the extraneous material might have had an antagonistic action upon the physiological effects of the poison.

With the exception of the four animals of the first experiment, however, all other injections were made with the pure, uniform material of later preparation. When the rabbit was injected with 0.5 c.c. of the solution, as before stated, on returning it to the box it remained quite motionless for some little time. At the end of fifteen to twenty minutes the eyes became duller, and in half an hour a period of great restlessness began. This progressed in a short time to a well-marked tetanic seizure. There was well-marked trismus, the spasms, as with the guinea pigs, being both tonic and clonic. It is interesting to note that any disturbance of the animal during a period of remission excited a fresh convulsion. During the earlier part of the convulsive period the heart action diminished until it was restored to the normal. From this time on, the action gradually became slower and weaker until the ultimate cessation of movement. In the experiments thus carried out, death ensued about 12 hours after the time of the injection.

Since the peritoneal exudate of the poisoned guinea pig showed such a marked increase in toxicity, it was thought well to try its effect on the rabbits. Of this exudate 0.5 c.c. was injected intraperitoneally into a healthy adult rabbit. An intoxication similar to that already described rapidly set in, and the symptoms developing far more rapidly than in the previous experiments, the poisoning ended fatally in an hour. From this it is clear that the tumor extract excites a pernicious cell activity, in the course of which toxic matter is formed. Furthermore, the production of fresh poisonous material must progress at a rapid rate, as one-twentieth of the peritoneal exudate causes death in the rabbit in one-twelfth of the time which the same volume of the pure toxin solution requires. The question not unnaturally arises whether the toxin of this exudate be the same as that contained in the tumor extract. While the general clinical picture produced by the two substances is the same, the tremendously increased virulence of the exudate bespeaks either a very much greater concentration of the original toxin or the presence of a new, more

powerful substance similar in its character to the first. While the solution of the tumor extract is saturated, the method of separation is designed to lower the solubility of the original substance, and in its original form there is no reason to suppose that it would not be materially more soluble. This phenomenon may also be explained by the theory that the equilibrium of the incitor constituents of the blood becomes unbalanced or, in other words, the immune antibodies are completely overwhelmed by the antagonists or inhibitors, due, no doubt, to the action of the toxic substance upon the nerve centres.

VI. Control Experiments.

With the completion of the experiments just detailed, the necessity arose for certain control determinations defining the specificity of the tumor extract. On the one hand the bases used in the preparation of the material might be responsible for the toxic phenomena exhibited, and, on the other hand the poisonous substance might result from the treatment of any tissue, normal or otherwise, by chemical reactions involved in the processes of separation, In order to resolve these points the following experiments were undertaken:

In the first case a salt was prepared from the base used (ZnO) in the separation and lactic acid, the latter selected as it is found in small amounts as a constituent of normal tissue. Repeated injections of this material in quantities much larger than were used in the extract, failed to produce other than most temporary and evanescent effects. Further, repeated injections into the same animal have failed to produce the slightest evidence of disease even after many months' time and the administration of large quantities of substance. The wholly negative character of these careful and extended experiments warrants the conclusion that the mineral portion of the tumor extract as conditioned by the method of separation is wholly without influence in the production of the observed phenomena.

As the starting point for the second control experiment, tumors were selected which clinically and histologically gave absolute evidence of their benign character. These were treated in precisely the same manner as the malignant growths, and as a result of the various operations a crystalline product was obtained which differed materially in appearance from that derived from the carcinomata. Following the technique adopted with the earlier experiments, doses of this material were injected into both rabbits and guinea pigs. Neither with doses ten times that of the lethal dose of the carcnioma extract, nor with repeated injections over a long period of time, has it been possible to produce local or con-

stitutional symptoms of intoxication, the effect of the injections being no more than would have been obtained with similar doses of normal saline solution. In short, neither the material used in the separation, nor the method itself, can produce the specific poison of the malignant tumor extract. Further, benign tumors contain no toxic substance or substances; none, at least, that are separable by the method employed.

The result of these experiments warrants the following conclusion: Carcinomata contain some substance or substances which are susceptible of isolation, and which, when injected into healthy tissue, produce results which are dependent upon the inherent chemical nature of the material itself.

VII. Immunization.

The direct implication of this conclusion was the possibility of producing an antibody, the effects of which would directly antagonize the toxic action of the tumor substance. While the work of the past twenty years has made the subject of immunity a familiar one to the profession at large, a brief statement of the theory involved may not be out of place. As is well known, the injection of sub-lethal doses of the poisonous products of bacterial growth into healthy animals stimulates the formation of other chemical compounds antagonistic in action to the first. These antagonists, or antibodies, are found in the blood plasma and remain in the serum of blood which has been allowed to coagulate spontaneously. Such serum when mixed with the original toxic substance in the proper proportions, (for the action is presumably a chemical one) wholly nullifies the poisonous properties of the latter and renders the inoculation of animals with the resulting mixture entirely without pathological results to the animal. While the case is by no means as simple as might be implied by the following simile, the neutralizing action of the immune serum upon the poison can be regarded as analogous to the neutralization of an acid by an alkali, a specific amount of the one combining with and rendering inoperative a definite amount of the other. In the cases of poisons of relatively simple structure, up to the present time, at least, the usual procedure for the production of antagonistic antibodies has been unattended by success. On the other hand, not only the complex poisons produced by bacterial metabolism but the similarly complex poisons of normal vegetable growth, such as abrin and ricin, have exhibited uniformly the power of stimulating the receiving organism to the production of the specific antagonizing compound. While up to the present nothing has been learned concerning the chemical nature of the active tumor extract, its capacity to produce antibodies could be

studied experimentally to advantage. To that end a series of immunization experiments was undertaken, the details and results of which will be next considered.

For these experiments fifty-three healthy adult rabbits were selected. These were all injected in the same manner, under carefully maintained aseptic conditions, with 0.1 c.c. of the solution, corresponding to 4 milligrams of the active substance. The injections were made subcutaneously, the site being the abdomen. Transient dullness and slight malaise lasting for perhaps an hour or two were the only results of the injection. Ten days later a second immunizing dose was given, this time of 10 milligrams of active substance. The same transitory and superficial dullness was the only manifestation. After a second interval of ten days the third injection was made, this time of 20 milligrams. It will be noticed that in non-immunized rabbits this dose would kill in twelve hours. In the present case the animals showed a more pronounced dullness than with the earlier and smaller doses, and in some few instances there were evidences of a general intoxication. Consequently the remaining three immunizing doses, which were given severally at ten-day intervals, were reduced to the 10 milligrams of the second dose, which had been found to be perfectly tolerated. Thus in a period of 50 days the animals received 64 milligrams of the toxic substance divided into six doses. Of the 53 animals originally selected, five developed signs of malignant disease during the process of immunization, and though in these cases the injections were discontinued, the tumors continued to increase and in several cases terminated fatally. These were rabbits 5, 6, 7, 8, and 9, which have already been described in an earlier part of this paper. Ten more of the animals developed signs of constitutional disturbance of a greater or less severity. Autopsies showed unmistakable evidence of malignant growths; the remaining eight are apparently healthy, as are also the remainder of the series of 53, and these have in most instances increased somewhat in size and weight during the immunizing period. Only these latter healthy animals were used in the subsequent experiments.

After several preliminary essays the following technique for securing the serum was adopted, and this has been rigorously followed throughout in all the later work. The rabbit to be bled was taken and the chest over the region of the heart scrubbed thoroughly. The site thus prepared was ready for operation. With a sterile syringe the needle was plunged directly into the heart and 40 c.c. of blood withdrawn. This was done without apparent discomfort to the animal. In spite of the relatively large amount of blood removed in this way, the rabbits have in

every instance recovered from the operation, and in a brief period have been completely restored to health and activity. The portion of blood was allowed to remain in the flask for thirty-six hours, the sterile conditions being carefully maintained, and then the clear, supernatant serum was decanted into small sterile bottles of amber glass which were closed with sterilized rubber stoppers. The yield of serum was about 50 per cent of the blood taken.

VIII. Anti-toxic Action.

The first experiment with the serum was performed as follows: two guinea pigs of about the same weight were selected and into the first was injected 1 c.c. of the rabbit serum, while the control animal received a similar quantity of sterile salt solution. The experimental animal experienced a period of dullness after the injection which lasted for perhaps three hours. This gradually passed away, however, and the animal was soon restored to apparently normal health and activity. Two days after the immunizing dose, 1 c.c. of the tumor extract was injected directly into the abdomen of each of the animals. The control guinea pig after exhibiting the characteristic symptoms, died in about 30 minutes. The immunized animal, on the other hand, showed not the slightest effect, either at the time of the injection, or in the period of several weeks which has since intervened. Obviously an immunity was conferred upon the latter animal.

The second experiment was undertaken to determine the strength of the serum obtained from the immunized rabbits, or in other words, the strength of the cancer antitoxin. For this experiment twelve healthy guinea pigs were chosen, each weighing 250 grams. Two were used as controls, not as heretofore, but to prove that the 4 per cent solution of the chemical product contained the same amount of toxin as used in previous experiments. Each guinea pig received intraperitoneally the lethal dose, 0.5 c.c. of the solution. The same clinical symptoms resulted, death following in the first guinea pig in 22 minutes, the second in 24 minutes. This proved conclusively the toxic action of the substance.

In the first experiment was determined the antitoxic action of the serum following injection directly into the guinea pig. Now the question arose as to the action of this serum upon the cancer product. The following procedure was carried out. The ten remaining guinea pigs received the neutralized product injected intraperitoneally. A series of two guinea pigs was used, each pair receiving the same dosage. To 99 parts of the same solution as was used in the first part of this experiment, 1 part of the anti-

toxic serum was added, well shaken, and 1 c.c. injected intraperitoneally into the guinea pigs.

No. 2—98 parts of solution and 2 parts of serum
No. 3—95 parts of solution and 5 parts of serum
No. 4—90 parts of solution and 10 parts of serum
No. 5—98 parts of solution and 2 parts of serum

No immediate fatal results followed. The animals were then placed in their cage and carefully watched. Later there was a slight constitutional disturbance. This was least noticeable in the animals receiving the 98 parts solution and 2 parts serum. Two of the above guinea pigs, the original No. 2, have since died. Post-mortem examination showed that the puncture was made too deeply, resulting in peritonitis. In No. 5, where care was taken to avoid this source of error, the results were most satisfactory and the animals are now in excellent health.

Similar experiments upon rabbits, using the same procedure as above, have been carried out, special care being taken with the technique. The results were 100 per cent, as there was no death following. It may be noted that double the lethal dose was used in this part of the experiment.

Since the above results, which were during the early part of the experimental work, the technique has been developed so that at the present time we are able to obtain crystals in nearly a pure state.

IX. Specific Toxicity.

Recent experiments to determine the degree of toxicity were as follows: Fifteen healthy guinea pigs, averaging 600 grams each, were used; five receiving .1, .2, .3, .4 and .5 c.c. respectively, of a 4 per cent solution of the crystals at 37.5° C., so as to determine the minimum toxic dose. In this case it was found that .4 c.c. produced death in the guinea pig in twenty-two minutes, the spasms beginning in seven minutes following the injection and lasting until six minutes before death. With the same toxin as was used in the above experiment an attempt was made to find the smallest amount of antitoxin that would completely neutralize the toxin; with the result that 1/100 c.c. of immunized rabbit serum neutralizes 1 c.c. of the toxin. This, however, will be repeated in a number of cases, using individual and also mixed serum.

Recent work done in Vienna upon the effects of heat upon the serum in this case has been most valuable, and is explained as follows: The incitor constituents of the serum may be expressed as the immune bodies or specific antibodies contained in the serum and the inhibitors which are antagonistic to the antibodies. These

substances may vary, but in the immunized serum one would expect the serum to contain a larger amount of the specific antibody substance. Now, if this be true, it is reasonable to suppose that one may be destroyed without harm to the other. Research work along these lines has been carried out by others with the results that the inhibitors may be destroyed if heated to 56° C. for thirty minutes. This was a most valuable piece of work, as one will readily see that with the inhibitors removed it will require much less of the serum to neutralize the toxin present in the body.

Following the experimental investigation of the etiology of carcinoma and the experimental study of immunity, its bearing upon the treatment of carcinoma in the human body was considered for this work. Cases were treated with the immunized rabbit serum, and the following results were noted: 232 cases in all were treated; 25 per cent of these were inoperable cases, never operated upon, with involvement of important organs. 25 per cent were cases of recurrent carcinoma, inoperable, without involvement of important organs. The remaining 50 per cent are cases operable, with only partial removal of carcinomatous involvement. At present writing 92 of this number have shown temporary improvement; 30 show permanent improvement; 43 out of the 46 treated for prophylaxis, immediately following operation, are perfectly well at the end of nine months; 32 remain uninfluenced in any way by the use of the serum, and 32 have died.

During the past year, along with the above experimental work, there has been a careful investigation made to note the action of the crystals in solution when used similarly to the antitoxic serum. It is known that this substance when injected into animals, produces a disease similar to the human cancer. With the knowledge gained from this experimental work it was thought best to determine the action of this substance upon the disease in the human body. Every step has been checked so as to be absolutely sure of the action of this substance when introduced into the human body. At the present time it has been found that a solution of the carcinoma toxin, each c.c. containing .00002 gm. of the actual substance, when administered hypodermatically at intervals of from five to ten days (depending upon the patient) for five successive doses, produces evidence of an active immunization. A positive statement in regard to the active immunity must not be made at this time, for we would expect to learn this to be an absolute fact only after waiting several years. In the animals, however, it is definitely known that active immunity can be conferred for more than three years. This seems to open up a still wider field for the use of this substance, and careful experimentation should soon determine the possibilities of its specific action.

In conclusion the facts elicited up to this point in the investigation may briefly be summarized:

Summary.

1. A procedure has been developed whereby a substance or substances may be isolated from carcinomata, the method precluding the presence of organic life in the end product.

2. This end product has been shown to be of a highly toxic character.

3. The peritoneal exudate produced by a fatal intoxication is far more toxic than the original substance.

4. The tumor substance has been shown to possess not only a general but also a specific toxicity, since on injection into rabbits in doses of less than lethal amount it will produce well-defined, well-characterized carcinomata, the site of the primary lesion being different from and independent of that of the injection.

5. The appearance of the primary lesion is followed by the development of numerous metastatic foci in different parts of the body, while the characteristic cachexia manifests itself.

6. The poisonous tumor preparation has been shown to be characteristic of carcinomata.

7. By the repeated injection of very small doses a large number of rabbits have been immunized.

8. The serum from the animals thus immunized possesses the power of antagonizing the toxic action of the tumor substance. This has been demonstrated by injections of the serum either previous to or simultaneous with that of the tumor poison. In both events no effect is observed from quantities of the poison which, if injected alone, would produce a rapidly fatal intoxication.

9. With the simultaneous injection of poison and antibody it has been shown that one part of the latter will effectually antagonize 99 parts of the former.

HOW TO SECURE AND RETAIN HEALTH AND HAPPINESS.*

By John P. Sutherland, M.D., Boston, Mass.

What is Health? What is Happiness?

The answers given by different people to these questions will depend largely upon their life experiences and their ideals. If one consults the dictionaries, he will find that Health means essentially "wholeness"; "soundness of body"; "that state (of any living organism) in which all the natural functions are performed freely without pain or disease"; "freedom from sickness or decay." And Happiness by the same authorities signifies in its full extent "the utmost pleasure we are capable of"; "that state of being . . . in which pleasure decidedly predominates over pain"; "the pleasurable experience that springs from . . . the gratification of the desires, or relief from pain and evil"; "a continued experience of pleasures and joy"; "enjoyment"; "a state of felicity and satisfaction"; etc.

Concerning Health, we find opinions are practically unanimous including, as they do, the possession of vitality and energy and the ability to do in an unhampered way whatever inclination or necessity demands. Concerning Happiness, however, if we turn to other sources than those quoted, we find Longfellow saying "To be strong is to be happy." Locke says, "A sound mind in a sound body is a short but full description of a happy state in this world." Carlyle said, "The only happiness a brave man ever troubled himself with asking much about was happiness enough to get his work done." Ruskin claimed that "to read, to think, to love, to pray, . . . are the things that make men happy." To Marcus Aurelius is attributed the saying "The happiness of your life depends upon the quality of your thoughts; therefore guard accordingly." Robert Louis Stevenson, who set "happiness" as a task for himself, wrote "To be truly happy is a question of how we begin and not how we end; of what we want and not of what we have." Elbert Hubbard has said "If you have health you probably will be happy; and if you have health and happiness, you will have all the wealth you need, even if not all you want." An author of many centuries ago, Epictetus, taught "If a man is unhappy, this must be his own fault, for God made all men to be happy." "Health and cheerfulness mutually beget each other" was Addison's opinion, but while health and cheerfulness and happiness usually co-exist it must not be assumed that health is always essential to true happiness, for there are numberless in-

*Delivered Sunday, June 28, 1914, at the First Methodist Episcopal Church, Atlantic City, N. J., in connection with the Annual Session of the American Institute of Homœopathy.

stances wherein happiness is present in spite of deformity, of ill-health, of pain and suffering, of privation and poverty.

As a matter of fact there are at least two types of happiness presented to our minds, one consisting of selfish pleasures, the delights of the senses, indulgences of appetites and gratification of desires, all of which tend to cripple one's usefulness to humanity at large;—and the other a condition in which one attempts to serve his neighbors, to comfort, encourage, and strengthen the faint-hearted, to make the rough places smooth and the crooked paths straight for those whose places and paths are difficult;—in short that condition possible only to those whose ideals embrace an unselfish devotion to the comfort and well-being and happiness of others. But not to attempt too closely to define Health and Happiness let us concede for present purposes that Health consists essentially of a sound mind in a sound body, and that Happiness is a state of mind which permits one to rise above cares and anxieties and troubles and enjoy the good things that are within the reach of all, rich or poor; and which leads to peace of mind and a cheerful, hopeful and contented spirit.

Are these conditions of health and happiness universal? Should they be universal? Was it a part of the first great plan that man, the crowning achievement of creative force, should possess health and happiness? If we are permitted a literal interpretation of the thirty-first verse of the first chapter of Genesis we are to understand that at the end of creation, when "the heavens and the earth were finished, and all the host of them" that "God saw everything that he had made, and, behold, it was very good." It could not have been otherwise according to our conception of Infinite Love. Only an unblemished article could have issued as the product of creative skill. If it were then part of the Creator's plan that man should be blessed with the possession of a high type of health and happiness, and if this is a fundamental conception, why is it we are literally surrounded by and living in the midst of so much illness, so much suffering, so much pain, such heart rending sorrow and degradation, such incalculable and indescribable unhappiness? Surely there must be somewhere something wrong;—somehow some mistake has been made;—something has interfered with the carrying out of the original plan which when instituted was pronounced "very good." What is this wrong? Wherein lies the mistake? What has interfered with the execution and full carrying out of the plans laid by the All-Wise Creator? Possibly from a medico-religious standpoint answers more or less conclusive and convincing and helpful may be found to these questions.

To consider the first part of our subject, "How to Secure and

Retain Health," let us briefly review the nature and causes of ill health or disease and the surest, sanest method of avoiding it. It is unnecessary to present a list of the various diseases humanity is subject to. The list would be a long and depressing one, for these diseases or deviations from health are numbered by the score, and even by the hundreds. Disease itself is simply a departure from health, a friction or difficulty in the running of the machinery of life. The deviation may be slight, short-lasting and scarcely more than a passing discomfort, or it may be so severe as to lay the strongest low, to stretch one on a bed of agony and suffering, and to terminate in exhaustion and death. All imaginable grades of severity and duration are possible, but for them all causes are necessary and causes are recognized. These causes are not in the sunshine, the source and preserver of physical life on this planet; not in fresh air, a recognized necessity to maintenance of life; not in climate, not in pure water, not in well-lighted and well-ventilated dwellings, not in the majority of our occupations, although there are some disorders properly classed as "occupational." These sanitary and hygienic influences cannot produce disease. The real causes of disease may be classified into two groups:—primarily and fundamentally must be placed a lowered resistance of the body, or to be technical, a loss of natural immunity; and secondarily the introduction into the body of some germ, parasite or noxious influence having its origin outside the body, or the generation within the body itself of some irritating, poisonous or noxious material capable of interfering with the normal performance of body functions.

To take these causes seriatim it may be claimed that the most important factor in disease production is lowered resistance. Life is a constant and continuous battle with the forces of dissolution, but under favorable conditions of nutrition the resistance to malign influences is sufficient to preserve a balance and maintain health. More especially in crowded communities man is daily subjected to the influence of what are popularly known as "germs." It not infrequently happens that man, for a longer or shorter time, carries about in his body the germs of pneumonia, diphtheria or other diseases, but his resistance is naturally and usually sufficiently high to prevent the germs from exerting their injurious influences. This is as it should be, for Man in the beginning was given "dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepth upon the earth" (Gen. 1, 26), and . . . "over every living thing that moveth upon the earth" (Gen. 1, 28). This "dominion," however, is not always alert and efficient, but is sometimes lost, with the result that man falls a victim to tuberculosis,

scarlet fever, malaria, yellow fever or any one of the host of so-called germ diseases. It may be assumed that if all men always retained their normal powers of resistance, or their "dominion over every living thing that moveth upon the earth," germs might come and germs might go, but man's life would flow on forever.

Apropos of germs, it is correct to claim that only a minority of diseased states are attributable to their activities. These are mainly the acute febrile disorders, self-limited in character, which run more or less typical courses and in the main tend to recovery. There are diseases, however, caused by germs, parasites and their products, which once implanted in the economy do not tend to spontaneous recovery, but linger on indefinitely to terminate, unless arrested by medical art, in the death of the sufferer.

It is more particularly to that cause of disease which is generated within the individual's own body, or that has to do with its nutrition, that your attention is directed. The possibility of man's generating his own poisons is fairly well recognized by members of the profession, but is not appreciated to any practical extent by the laity. And yet everyone knows that all life, the life of the plants, the life of the animals, the life of man, depends upon what is called nutrition; that if from any cause nutrition is interfered with, the life itself suffers accordingly. By nutrition is understood that process by means of which substances introduced into a body are by chemico-vital action transformed into the tissues or structures of that body, or are utilized in the production of heat and energy; in either case certain waste materials are formed which have to be disposed of. The process is a complicated one of up-building and disintegrating, and is in physiological parlance spoken of as metabolism. The substances introduced into the body, from whatever source derived, are known as foods, and the medium by which the food is distributed throughout an organism is called the "sap" in plants, the "blood" in animals. It is a self-evident truth that the sap or the blood must contain all the ingredients necessary truly to nourish the plant or the body; otherwise the plant or the body cannot grow and flourish and perform its various functions. "For a good tree bringeth not forth corrupt fruit; neither doth a corrupt tree bring forth good fruit. For every tree is known by his own fruit. For of thorns men do not gather figs, nor of a bramble bush gather they grapes. A good man out of the treasure of his heart bringeth forth that which is good; and an evil man out of the evil treasure of his heart bringeth forth that which is evil: . . . " Neither is it possible to form a healthy, strong, efficient body from food materials that do not contain the exact quantity and variety of substances demanded by that body. Illustrations in confirmation of this statement are easily obtained.

To select but one let us refer to the parable of the sower who went out to sow his seed, "and as he sowed, some fell by the wayside; and it was trodden down, and the fowls of the air devoured it. And some fell upon a rock; and as soon as it was sprung up, it withered away, because it lacked moisture. And some fell among thorns; and the thorns sprang up with it, and choked it. And other fell on good ground, and sprang up, and bare fruit a hundredfold."

It seems strange considering the acknowledged value of health, the great necessity of possessing a "sound mind in a sound body" in order to live a life of usefulness and happiness, that some revelation has not been made, some definite directions given to guide us in the proper nourishment of the body, to help us decide what we should eat. Some claim that we are to be guided by instinct, but man does not possess instinct as do the lower animals. Man is a rational being and is to be guided in his actions by knowledge and judgment, not by irrational instinct. Some claim we should be guided in the matter of food for the physical body by our palate, by our likes and dislikes. The fallacy of this claim is seen at once when it is broadly applied as a rule of conduct. Society would soon be utterly demoralized if people followed as a guide their likes and dislikes, their emotions, their passions, their desires. These things are always to be controlled and governed by knowledge, by reason, by judgment, by obedience to the higher laws of life. But possibly a revelation has been made. Possibly suggestions as to what is useful and necessary for the nourishment of the body, for the full and vigorous development of a "sound mind in a sound body," have been written in exceedingly legible language, if one will but look and see. If we consult the written Word, we do not find much that throws light upon the subject, for the Word is written to guide us in things spiritual rather than in things merely physical. In Genesis, first and second chapters, however, we find verses which, if literally interpreted, would seem to offer some suggestion; as for instance, Genesis 1 : 29, 30, 31, "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in which is the fruit yielding seed; to you it shall be for meat. And to every beast of the earth, and to every fowl of the air, and to every thing that creepeth upon the earth, wherein there is life, I have given every green herb for meat: and it was so." Genesis 2 : 9, 16, 17, "And out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil." "And the Lord God commanded the man saying, Of every tree of the garden thou mayest freely eat: but of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the

day that thou eatest thereof thou shalt surely die." If by some these verses are adopted as offering a foundation for vegetarianism in diet, the argument may be met by quoting from Leviticus, the eleventh chapter, where we read:—"And the Lord spake unto Moses and to Aaron, saying unto them, Speak unto the children of Israel, saying, These are the beasts which ye shall eat among all the beasts that are on the earth. Whatever parteth the hoof, and is clovenfooted, and cheweth the cud, among the beasts, that shall ye eat." And then follows a detailed list of animals that shall be considered "clean" and "unclean" and that may or may not be used as food.

Without doubt these suggestions and permissions are not to be taken in an absolutely literal sense, because the scriptures are written symbolically and have an internal meaning which has been revealed and which can be applied to the spiritual life by those whose ears have been unstopped so they can hear, and whose eyes have been opened so they can see.

Possibly we may find the revelation we seek if we consult the book of Nature and make use of the knowledges of sciences of biology and physiology and chemistry, which have been vouchsafed us. Such a search reveals the minutest composition of the physical body and all its component parts, as well as the chemical composition of all the materials used by man as food. Bone and cartilage and tendon and muscle and blood and brain and glandular organs, and even the minute cells which compose these tissues and organs, have been painstakingly analyzed, and the physiologist can tell us all about these material structures. The chemist can tell us the varieties and percentages of mineral matter, the amount of that wonderful thing called protein, the exact proportion of fat and sugar and starch and extractives found by analysis in grains and nuts and vegetables, in fruits and berries, in milk and eggs, in meats and other things used as food for man and beasts. Analysis has been carried so far that the heat-producing power, or the "caloric value" of foods has been tabulated, and physiological experiments have determined how many calories or heat units are needed by the average man for the average day's work. Man's patient examination and analysis of Nature's products has determined all these things with commendable and satisfactory accuracy and he has learned to utilize much of this knowledge to the saving of innumerable lives and the prevention of much suffering. Man's knowledge of physiology and chemistry and anatomy and the causes and manifestations of disease, and his knowledge of drugs and surgery and other healing measures have made, we are told, wonderful progress during the centuries, but more especially during the last half century. And yet man's knowledge has not pro-

gressed far enough to enable him to prevent the development and continued existence of the host of diseases which afflict humanity. A few of these diseases he happily is able to prevent, but he seems helpless before most of them. What is wrong, for there must be something wrong somewhere? Why is it that disease is most rampant among civilized people, who possess all this knowledge? Why is it that today fewer men fifty years of age will live to reach seventy than was the case a generation or less ago? This is what vital statistics according to life insurance authorities tell us is the fact. Why is it that the dreaded white plague, Tuberculosis, is so devastatingly prevalent? Why is it that in recent years there has been such an alarming increase in the number of cases of insanity and nervous disorders? Why is it that the terrible scourge, cancer, which only a generation ago was supposed to be a disease of old age, is found not only in the sixties and fifties, but has become very frequent in the forties and even in the thirties? Why is it that pneumonia, the germs of which are with us always, is so alarmingly prevalent and fatal? Why is it there is such an uncountable and unclassified variety and number of wrecked physiques and incompetents, and sufferers from chronic disorders of heart and lungs and intestines? Again there must be something wrong somewhere. These things are all evil, and these wrongs and these evils were not present on that day when "God saw everything that he had made, and, behold, it was very good." There was, therefore, nothing wrong and nothing evil as a part of the original creation. It is inconceivable that Infinite Love and Wisdom should have created such wrongs or such evils when He created man in his own image, for He is Goodness itself and not Evil. It must be that man himself, by perverting the good that was his original heritage, has brought all this disorder upon himself; for he was created into an absolute freedom to choose for himself what he should do in the essentials of physical and spiritual life. This statement is supported by the knowledge derived from biological studies. As man has progressed from the simple, uncomplicated life of primitive peoples to higher and higher forms of, what is called civilization, diseases have multiplied in variety and number. That is, as man has increased in his knowledge of material things, as his mental powers have expanded and his ability and ingenuity have developed he has more and more set up his own judgment in opposition to the Almighty's and has suffered and is suffering the consequence in physical disabilities.

To recapitulate:—from the physiological view-point, one of the vital properties of protoplasm, which is the physical basis of life, is nutrition. Naturally the quality of protoplasm or the quality of

the living organism depends upon the quality of the food ingested. It is only rational to assume that an unsuitable food, an imperfect unbalanced ration, a diet deprived of ingredients which Nature evidently intended it to contain, never did and never will produce, and cannot be transformed into, a healthy body, a "sound mind in a sound body." It, therefore, behooves us to determine what Nature intended us to utilize as food. The question naturally arises—has Nature made any revelations to guide us? Are there any indications pointing to what is good and valuable, and to what is injurious? Possibly such revelation is nearer at hand than many think—one has but to look and see! Much depends upon our conception of Nature. It is to be hoped that none of us agree altogether with the well-known naturalist, John Burroughs, who in one of his shorter essays patronizingly wrote as follows:—"Man plans and builds and plants by method, order, system; he has eyes to see and hands to guide, and wit to devise: Nature builds and plants blindly, haphazardly, all around the circle; her hand-maidens are industrious but undirected." "Nature is pervaded with an intelligence that differs in kind from that of a man—a blind, groping intelligence. Instead of taking short cuts, as man does, and saving time and waste, she beats all around the field like a blind man looking for a gate." "If the Creator was aiming at man all these long geologic ages, groping his way through these low, and then through these gigantic repellent forms, how blindly and indifferently He seems to have worked!

"Yet through this hit-and-miss method of Nature, things have come to what they are; life has come to what we behold it; the trees and plants are in their places; the animals are adjusted to their environments; the seeds are sown, fruits ripen, the rains come, the weather system is established, and the vast and complex machinery of the life of the globe runs more or less smoothly, undirected, in the human sense. Blind groping, experimenting, regardless of waste, regardless of pain, regardless of failure, circuitous, fortuitous, ambiguous, traversing the desert and the wilderness without chart or compass, beset by geologic, biologic, and cosmic catastrophes and delays, yet the great procession of the life of the globe, with man at its head, has arrived and entered into full possession of the inheritance prepared for it." The essay ends with, "Who and where is the general who is conducting the campaign?" Rather let us agree that behind Nature is the Great and Only Intelligence;—that what is called Nature is simply a physical or material manifestation of the love and wisdom and power of God;—"for thine is the Kingdom, and the Power and the Glory." Rather let us say in the words of the Nineteenth Psalm:—"The heavens declare the glory of God; and the firmament

sheweth his handywork. Day unto day uttereth speech, and night unto night sheweth knowledge. There is no speech, nor language where their voice is not heard." It is not too much to claim that Nature has a wonderful faculty of adapting means to ends; a far-seeing vision that can plan and provide. We have, for instance, on the one hand a wonderful mechanism called man whose body, an ephemeral structure, is in constant need of rejuvenation and sustenance;—and on the other hand an abundant supply of wholesome food materials adapted to the nourishment of that body.

It is not possible within the present time limits to enumerate in detail the foods which Nature unquestionably has provided for man's use, but the endless variety of grains, and nuts, and vegetables, and fruits and berries certainly provide all the mineral salts, all the protein, all the starch and sugar and fat needed to produce a thoroughly healthy and clean and strong and useful body;—a body that, hygienically and suitably cared for in other respects, will give its possessor but little annoyance and will have resistance enough to repel malign influences, which seek to injure, cripple or destroy it. Be assured, however, that Nature has provided wisely and intelligently, and *imperatively insists* that man shall take the combinations she has thus provided, and that man *shall not* presume to separate and divorce the things she has so marvelously compounded. If we are told anything, we are told to eat the *whole* of the wheat grain, of the rye, the barley, the rice and oat and corn, and told *not* to deprive our bodies of any of the ingredients of these grains. By way of illustration, rice is known to be the chief food of millions of people; and it is now known that milled or polished rice, that is, rice deprived of much of the mineral matter Nature put into the grain, is the one and certain cause of Beri-beri, a disease common among the Chinese and Japanese and fatal in 40 to 60 per cent of those attacked. By eating the whole rice, Nature's own product, the disease may be prevented, and also cured, if it has not been allowed to develop too far.

Now how much of the ill-health, the nervousness, the insanity, the cancer, etc., so common in America may be due to the too free use of the staple white flour which enters so largely into the popular diet? Upon what authority is the noble white wheat deprived of a large percentage of its mineral salts and protein and in its demineralized form converted into an unbalanced ration?

When Nature has provided in most agreeable and palatable and easily assimilable forms a free supply of sugar in fruits and berries, and certain vegetables and milk, why should man not be content to take the natural product and not spoil his appetite and digestion and often ruin his health by steady indulgence in ice cream sodas, confectionery, cakes and cookies, pies and jam, and

preserves; all of them and their kind unwholesomely and viciously sweet?

"A word to the wise is sufficient." Nature *has* revealed her wisdom in providing food that is all-sufficient for the needs of the human body; and mankind, in going contrary to the directions plainly given, brings upon itself misery and suffering, disease and death.

It would be well for mankind to apply to this matter of manufacturing flour and cereal foods and sugars and things related thereto the command given by the Saviour himself in connection with the sanctity of marriage and found in Matthew XIX, 6, "What therefore God hath joined together, let not man put asunder." Surely we are justified in claiming that Health, "a sound mind in a sound body," can be secured and retained by listening to and following the directions given by a beneficent "Nature."

Just a few words more, briefly, in connection with *happiness*, by which we ought to understand not only the joy of living, the comfort which co-exists with the ability to endure and accomplish, the satisfaction of laboring with useful results, and striving to do our various duties, and the pleasures which are consistent with the high ideals of life, but that state of mind which brings about peace, tranquility, confidence, faith and hope in the eternal right and justice of things in this life. What soundness and strength and freedom from disease and suffering are to the body, happiness is to the mind or soul. Much unhappiness and inefficiency are due to the mistake made by many in considering man as simply a material, a physical organism, a thing composed of flesh and blood. The most elementary studies in anatomy, physiology and embryology, and the ordinary experiences of life should be sufficient to convince us that Man is *not* simply flesh and blood; that he is something more, in fact nothing less than an immortal soul or spirit temporarily and for a short time encased in the material and ever-changing body, handicapped by its limitations. It is commonly recognized in these days of psycho-analysis, psychotherapeutics, mental healing, sub-conscious cerebration and researches into the psychological that the real man is an indestructible Personality, an imponderable, intangible force and entity, a reality separable from the purely physical. The idea of man being a spirit is not as offensive to scientific thought as it formerly was. Recent investigations into the nature of electricity, of X-rays, of radium, of wireless telegraphy, of psychic phenomena, of the all-penetrating ether, and the new conceptions of matter, the atom, the ion, the electron, etc., have prepared the scientific mind to accept the idea of immortality, and to look upon man as a spiritual substance destined to immortal life. The progress in this direc-

tion is reflected in modern scientific thought, but nowhere do we find it more definitely stated than in the famous address on "Continuity" (the Continuity of life) made by Sir Oliver Lodge as President of the British Association of scientists. He says, . . . "already the facts . . . examined have convinced me that memory and affection are not limited to that association with matter by which alone they can manifest themselves here and now, and that personality persists beyond bodily death." It is recognized not only by the medical profession, but by the laity that man himself is *not* the bones and muscles and tissues of which his body is composed, for this body may be crippled by the loss of eyes or tongue or stomach or appendix or limbs, or various other organs and structures, without in any way crippling the ego, the personality, the essential characteristics of the individual. It is unquestionably then a belief in the existence and persistence, in the indestructibility, of the soul that makes for the highest type of happiness and that affects most profoundly the whole physical and spiritual life of man.

It is proper to ask, does the soul need nourishment? Is the spirit of such stuff that it needs food? And if so what sort of food has been prepared for it? To answer these questions we have to leave the realm of the material and seek knowledge from revelation which is abundantly given. In Deuteronomy VIII, 3 we read—"And he humbled thee, and suffered thee to hunger, and fed thee with manna, which thou knewest not, neither did thy fathers know; that he might make thee know that man doth not live by bread alone, but by every word that proceedeth out of the mouth of the Lord doth man live." In Isaiah, chapter LV. 1, 2, 3, we find the following significant directions:—"Ho, every one that thirsteth, come ye to the waters, and he that hath no money; come ye, buy and eat; yea, come, buy wine and milk without money and without price. Wherefore do ye spend money for that which is not bread? and your labor for that which satisfieth not? harken diligently unto me, and eat ye that which is good, and let your soul delight itself in fatness. Incline your ear and come unto me: hear, and your soul shall live; . .

In the Gospel of St. Matthew IV, 4 we are told "It is written, Man shall not live by bread alone, but by every word that proceedeth out of the mouth of God." And in the sixth chapter of St. John, the 27th verse, we are told among other things to "Labour not for the meat which perisheth, but for that meat which endureth unto everlasting life, which the Son of man shall give unto you." "I am that bread of life. Your fathers did eat manna in the wilderness, and are dead. This is the bread which cometh down from heaven, that a man may eat thereof, and not die. I am the living

bread which came down from heaven: if any man eat of this bread, he shall live forever."

In conclusion, it may be claimed that an unshakable belief in the essential, spiritual nature of man; a definite conviction that Life is not an ephemeral earthly existence, but stretches far beyond the confines of time and space,

I. Helps us to differentiate means from ends, the important from the insignificant;

II. Helps in the selection of modes of life and formation of habits;

III. Helps one to say, No, to many of the sensuous, natural temptations of life;

IV. Gives peace and courage to the perplexed and faint-hearted;

V. Gives one some ideals worth living for;

VI. Makes it easy to try to obey the decalogue and the two great commandments;

VII. Illuminates one's judgment in the difficulties of life;

VIII. Brings comfort in illness, courage in adversity and strength at all times;

IX. Brings a degree of Health and Happiness not obtainable elsewhere or elsehow:—and certainly enables one to say from the heart, "O death, where is thy sting? O grave, where is thy victory?"

What better thought can we carry away with us as we separate to take up our various functions in life, resolved to secure and retain the ideal Health and Happiness, than that given to us in John XIV, 27—"Peace I leave with you, my peace I give unto you; not as the world giveth, give I unto you. Let not your heart be troubled, neither let it be afraid."

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D., Arlington Heights, Mass.

Case 8-E. Diagnosis:—Hypochondriasis.[1]

The patient is an ex-business man, widower, 74 years of age. Inquiry into the family history shows that his family is a long lived one. There is an hereditary tendency to cerebral hemorrhage, his maternal grandfather and father having died as the result of "shocks." He is one of seven children, three beside himself are living and well and show no psychopathic tendencies. One brother died of typhoid fever, another of pneumonia. One received a spinal injury and finally died of a progressive paralysis, the disease extending over a period of eight or ten years. One died when young. Patient's wife had no children.

As a child the patient had the usual children's diseases and when about eight years old had typhoid fever. During adult life he was active in business and a competent military officer and he served a short time during the Civil War in the infantry. Soon after the war he had a fever which lasted two or three weeks. He has always been even tempered, but very conscientious, alert and prompt, and well liked socially. However, in business he has shown himself to be over scrupulous, everything having to be "just so" to the slightest detail. Up to eighteen years ago he had used liquor but not excessively and smoked considerably.

The present condition came on rather suddenly in January of this year although previous to this he had had some insomnia. One night in January the hot-water heater in his house burst with a loud report, frightening the patient excessively, and for several nights after this he feared a similar accident, so he would not undress and forced himself to stay awake. He showed an anxious mental state, was fearful and self-centred and craved sympathy. A physician advised institutional treatment.

Physically the patient is of moderate stature showing some senile changes but is in good condition for a man of his years. There is a noticeable loss of weight. Pupils react well. Slight irregularity of the heart beat with a muffling of all the sounds. Pulses good—the radials and temporals are palpable. Systolic pressure 144. Diastolic 74. Rate 70. Lungs negative. There is a definite hepatosis, liver dullness beginning at sixth interspace and extending down to about four c.m. below the costal margin in mid clavicular line. A moderate double inguinal hernia is present. Reflexes normal. Sensations apparently normal to pin prick.

Mentally he is perfectly clear as to orientation, and his memory

[1] I am indebted to Dr. Guy Tibbits for the discussion of this case. Editor.

is good. No hallucinations are present, but there are numerous obsessions concerning his physical condition. He is afraid to eat because he thinks that it will never pass from his intestines, or that as soon as it reaches his stomach it will be expelled, and so after eating anything, he goes about gulping and retching, which makes him all the more disturbed. At times he strains so hard that vomiting is induced. He thinks it is impossible for him to drink water for if he does he will not be able to pass it, so he tries to go without water for a considerable time. He, however, does take a sufficient amount and passes it quite well. To relieve his agitation in regard to bowel evacuation an enema has been given daily, but even then it is impossible to convince him that his intestines are in good condition. No matter how many enemata are given or how good the results are he gets no satisfaction. Even though he thinks his bowels are not moving well he wishes to get along without his enema, and at one time it was proposed to omit them for a day or so. When told that he was to go without them, he said in a frenzy of fear, "My God, doctor, you won't do that, will you? If you do I'll die, I can't get along without them." Then when assured that they would be continued he had to ask several times if they would be before he was relieved of his agitation.

He says that he does not sleep more than an hour or two at night, which is an erroneous idea, as he sleeps much more. A sleeping powder seems to make little difference. He may ask for a larger powder than usual to help his insomnia and then becomes agitated and does not want to take it, and is afraid it will cause him physical illness. After a conversation one day during which the word "appendicitis" was used, he became alarmed and was sure that he had the disease. Nothing would satisfy him but to have his temperature and pulse taken, and when he was told they were normal he still insisted that he had it. This idea after a few hours passed away. He complains of paræsthesias of his feet and legs—says they do not belong to him, that he hardly knows that they are there, that they are ice cold (when they are really warm), that they are crumbling under him. He "feels weak," he has "great difficulty in walking about," he "can hardly move his legs," yet if there is any occasion for it he walks quickly, even upstairs.

There is a feeling of pressure about the head or a dullness or heaviness which is quite constant. If medicine is given him he is in constant fear that it will interfere with that which he had taken several hours before, or "is the dose too large?" These questions are asked over and over in the course of a few minutes, and he once said "I know I've asked you half a dozen times already, but it won't interfere with the other medicine will it?"

Emotionally he is depressed—shows great apprehension and

when agitated his voice and hands tremble, his eyes are wide open and an expression of fear is on his face which is sallow and shrunken. He shows no definite retardation.

His flow of thought is ever about his condition, how he feels today, how he will feel tomorrow, how his head will feel, the result of his enema, etc. He is entirely self-centred and introspective. He has pains everywhere. When amongst others he will for a few moments enter into a general conversation or will tell a story and evince some interest, but soon relapses into his own fearful thoughts. Although his ideas are so absurd they are very real to him and he has seriously said, "I'd give my right arm to be as well as you."

There is an entire lack of insight and poor judgment.

The term hypochondriasis was given, in the past, to a certain mental state, but now it seems to have been dropped from the literature and is regarded only as a symptom of some more definite psychosis as dementia paralytica, dementia precox or manic depressive insanity and not considered a distinct entity. However, in certain cases where no other psychosis can be suspected it seems that the diagnosis of hypochondriasis is justified. Hypochondriasis is the condition in which one worries unreasonably about his physical condition. A hypochondriac misinterprets normal sensations and exaggerates slight symptoms which a normal person would not notice. He becomes alarmed and begins to treat himself and usually presents gastric or circulatory disturbances which may in part be induced. He reads medical literature in the hope that he will better understand his condition, but instead of gaining confidence, new symptoms are suggested and he has more to worry about, or he begins to think he knows more than the physician who is called to treat him and so makes the task of the latter harder. Thinking that he understands his condition so well he resents statements that are contradictory to his ideas, and becomes irritable. As time goes on he becomes depressed, apprehensive, irritable and loses confidence both in himself and in his physician. Gradually delusions about his supposed organic condition are built up. Although a hypochondriac is so eager to find new symptoms he is apt to be very sincere in his desire to get well, but he is the personification of misery.

If the diagnosis hypochondriasis is used it must be differentiated from the other neurosis—neurasthenia, psychæsthenia and hysteria among which it is classed, also from manic depression and dementia precox and one must rule out physical symptoms of neurological diseases in which it may occur as a symptom. Briefly defining, neurasthenia is a disease showing mental and physical symptoms, the most common mental ones being vague pains and the classical band-like constriction about the head. Physically,

there is that so-called "tired feeling" due to muscular fatigue. Not only the skeletal muscles are involved but also the involuntary, so that digestive and circulatory disturbances are common.

This case does present symptoms found in neurasthenia but it seems that there are other more important symptoms here not common to neurasthenia, especially the delusions. Fatigue is absent so this diagnosis may be ruled out.

Psychæsthenia is that mental condition in which there are obsessions combined with imperative acts and fears, such as the fear of open or closed places or of death. Here the diagnosis of psychæsthenia might be made but there are many somatic delusions, lack of judgment and lack of consideration of others which are not common to psychæsthenia.

Hysteria, except in cases that show few mental symptoms, is easily diagnosticated by some of the typical stigmata which are generally present. Although there are cases in which hypochondriacal symptoms are present, such decided mental symptoms as are presented here are not apt to occur. Again one would not look for hysteria in a man of 74 who gives no previous history of mental trouble.

As there are almost no physical symptoms of organic disease, these can be ruled out. The only physical conditions of importance in this case are arteriosclerosis and hepatosis.

Can we say that all these symptoms here described are due to arteriosclerosis? It surely does not seem so. If arteriosclerosis is the cause then it seems logical to expect more hypochondriacal symptoms in other cases showing this circulatory condition. Theoretically we might suppose that in this case there is anæmia of the sensory areas of the brain due to constricted calcified arteries giving sensory disturbances, and that the lack of judgment in interpreting sensations is due to a similar anæmia in the frontal areas. But considering that this is so, why should we not see more cases of hypochondriasis?

As for hepatosis being the cause as was formerly thought, there seems to be little reason for such belief. To be sure it may be a factor in producing abdominal symptoms by dragging on the plexus of nerves, but that it is the exciting factor is very doubtful. It is more probable that this is only a part of a general visceral ptosis due to the extreme absorption of fat.

There is one psychosis that is not discarded in our differential diagnosis so easily and that is manic depressive insanity. There are two types of mental symptoms in this disease, the excited state with flight of ideas, distractibility and motor excitement which here does not concern us. The other type, the depression, is characterized by a varying amount of depression, delusions of self-condemna-

tion as being unfit to live on account of having done some wrong, of persecution, poison put in the food to make him ill or kill him, and very often marked somatic delusions as the solidification of the intestinal tract, the inability to menstruate (although they do), the presence of snakes in the abdomen, the rectum being plugged or tied, the absence of organs, the blood being dried up and other similar gruesome ideas. But hallucinations are also very common in the depressed states and are absent in our patient.

Emotionally, with the depression there is apt to be great restlessness and agitation, the patient wringing his hands, pacing the floor and mumbling to himself. Other cases merely sit about in a sort of stupor with great mental and physical retardation.

As to age, we may expect the manic depressive psychosis from 16 years of age up to 50 but we seldom look for it afterwards unless the patient has had previous attacks. It is very common among women at the menopause and if occurring at this stage of life is usually called involution melancholia. This latter disease is now thought to be a form of manic depressive psychosis and is so classed by many.

The case cited might be classed as a manic depression on account of the patient's somatic delusions, depression, agitation and loss of weight, but as said above we would not expect it to come so late in life without previous attacks, and although there are some of those symptoms present, he does not show as great restlessness as one would expect, nor would he have such a clear consciousness and adaptability to environment.

The progress in this case is bad. One would expect such a case to gradually get worse and finally be carried off by some intercurrent disease as pneumonia or cerebral hemorrhage. In younger people and with milder symptoms the outlook is not so hopeless.

Treatment—This type of mental illness is one of the most difficult to treat, as whatever is prescribed does not seem to help and so remedy after remedy will be discarded. By far the better way is to try to inspire confidence. This seems like a hopeless task but should be continued with all the patience possible. Baths to stimulate the excretory apparatuses are valuable as are also electric treatments such as high frequency and static breeze and massage. Diet should be adapted to the patient's requirements but is a constant source of worriment. The most we can hope to do is to palliate the symptoms and keep the confidence of the family.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors.

Reprints furnished at cost.

THE DEFINITION OF HOMŒOPATHY.

Dr. James Krauss of Boston has taken it upon himself to tell us what homœopathy is and what it is not. Dr. Krauss has taken many serious problems by the horns in the last few years, and although he has not always convinced his readers of the soundness of his position, he has at least brought several things to our attention which are worth reconsidering. His last venture is "The Definition of Homœopathy" in the August number of the Journal of the American Institute of Homœopathy. We take up this paper for two reasons; first because the subject is too important to be allowed to pass by unnoticed, and secondly because we wish to show that the *Gazette* is by no means in accord with these fiery utterances of Dr. Krauss.

It must be acknowledged at the outset that Dr. Krauss has given thought and study to homœopathy, and consequently that his opinion commands respect whether or not we agree with him. Furthermore the opinion of Dr. John P. Sutherland, as expressed in his admirable address to the American Institute,* is highly respected by us.† And since no one, including ourselves, felt the necessity or the desire for answering Dr. Krauss' vicious and confused attack‡ on this paper, the subject has rested quietly. Now, however, we

* Journal of the American Institute of Homœopathy, July, 1913. p. 52.

† Dr. Sutherland, it will be remembered, considers that homœopathy is a method of treating the sick in accordance with the formula "similia similibus curentur," involving two subheadings, the science and the art. Under the science of homœopathy he places toxicology and pharmacology, and under the art he places pharmacotherapy. We find ourselves more in accord with the definition as shown in the chart than in the preceding paragraph, but even the chart fails to comply with our own humble opinion which we shall offer.

‡ Journal of the American Institute of Homœopathy, Oct., 1913. p. 319.

feel it our duty to enter the ring, and in so doing we very respectfully take exception to Dr. Sutherland as well as to Dr. Krauss.

To begin with, the point at issue,—namely, the definition of the term homœopathy,—cannot be argued from a purely scholastic viewpoint, but demands a scientific consideration. Hahnemann did not define the noun, but he did define the adjective. Thus in paragraph 70 of the fifth edition of the Organon he says: "The only really salutary treatment is that of the homœopathic method, according to which the totality of symptoms of a natural disease is combated by a medicine in commensurate dose, capable of creating in the healthy body, symptoms most similar to those of the natural disease. And as diseases are only dynamic disturbances of the vital force, they are overcome without additional suffering, and having been perfectly and permanently extinguished, they must cease to exist."

Dr. Krauss has suggested that the homœopathic method is one of the methods or "bridges that cross from one set of facts to another set of facts, to bring the facts of the sciences of medicine into an intended therapeutic relationship." But when he says, "Homœopathy is a scientific method of bringing disease phenomena and remedial phenomena of a drug into curative relationship," we take exception to his definition of the term homœopathy, although we agree to this as a definition of the homœopathic method. Without meaning to chop logic let us consider the word *philosophy* (φιλοσοφία) Literally this means the love of knowledge and wisdom, but in the course of ages it has come to be applied as a "general term, denoting an explanation of the reasons of things; or an investigation of the causes of all phenomena, both of mind and of matter." In fact the term has grown to include no less than 5 distinct definitions as given in the Century Dictionary. The adjective philosophic denotes that which pertains to philosophy. Literally *homœopathy* (ὁμοιπάθεια) means "liability to like affections" or preferably concerning like affections. Under this definition Dr. Krauss' definition of the adjective homœopathic, as applied to the method, is quite correct. But homœopathy is not and should not be confined to the homœopathic method of treatment as defined by Hahnemann or anyone else. It is broader. In the Organon does not Hahnemann lay special stress on the effect of like diseases occurring simultaneously? Is not the effect of one "natural" disease on a similar "natural" disease a part of homœopathy in its strictest sense?

As the term homœopathy has almost always been used in connection with the method of cure, it has come to apply to the homœopathic method;* nevertheless with the reawakening of the scientific study of problems relating to "like affections" or similar morbid

* The suffix pathy clearly does not signify a method, and should not be used for that purpose.

conditions we are now endeavoring to acquire a better understanding of how one "natural" disease affects a similar "natural" disease, and how a drug administered according to the homœopathic method can cure a natural disease. Homœopathy, therefore, has come to mean; 1, the study of like affection (which might properly be termed homœopathology); 2, the relationship of the remedial phenomena of a drug to the morbid phenomena of a disease which it cures, providing the drug produces similar effects on the body to the disease. And here comes the rub. Where does the similarity lie? Does it lie entirely in the symptoms as was asserted by Hahnemann?

Hahnemann lived at a time when all authorities made bold assertions, assertions upon which therapeutics rested. Today we have come to weigh these old assertions with scientific facts. Thus medicine is becoming more and more scientific and less dogmatic. Hahnemann's state of mind is peculiar in this respect, for he began by seeking how medicines cured. Once convinced of how they cured he built up a method, which in contrast to the then prevailing therapeutic methods was a great step in advance. He conceived his ideas through observations of symptoms, and therefore based his method upon symptom similarity. Satisfied with the accuracy of his deductions by successes in the practice of his method he no longer interested himself with the further study of the relation of disease phenomena to remedial phenomena; *viz.*, paragraph 28 of the fifth edition of the Orgânon; "Since this natural law of cure has been verified to the world by every pure experiment and genuine experience, and has thus become an established fact, a scientific explanation of its mode of action is of little importance." Right here we take exception to Hahnemann, and by so doing we draw a very distinct line between the homœopathy of Hahnemann and the homœopathy of today. Hahnemann's homœopathy is to the present day homœopathy as the dogmatic philosophy of the ancients is to modern philosophy. The law that likes are cured by likes is as true today as it ever was, but the when, where and why of it is still imperfectly understood.

The problem before the medical profession is no longer to establish whether the homœopathic method is ever of any value, but to establish in what particular cases and under what circumstances it is of value, and last but not least to establish why it is of value at all. Laboratory research is giving us valuable information concerning the modus operandi of drugs. Who shall say that the work of Burrett and Mellon at the University of Michigan, of Wheeler at London and the work in the Pharmacological Department of the Evans Memorial is "of little importance"? Dr. Krauss remarks, "Homœopathy takes the analyzed phenomena of diseases and drugs,

compares them and brings the corresponding phenomena into synthetic adaptation for a cure." But how far has this analysis gone? How reliable is the analysis upon which we synthetize? The old Hahnemannian homœopathy dogmatically asserts that symptoms are the one and only guide, that the materia medica is reliable and accurate, that the dose should be infinitesimal, and consequently that all we need to do is to prove new remedies. The modern homœopathy questions every one of these assertions. We ask why does quinine cure a case of malaria when the symptoms emphatically call for ipecac? And why does arsenic cure another case of this disease when the symptoms point to quinine? Is the materia medica at fault, or are there not more delicate reactions than the symptoms recorded in the materia medica?

We can now recognize distinct disease phenomena quite apart from the subjective and common objective symptoms. These biochemical phenomena are now being studied with regard to the relation of separate "natural" diseases producing similar phenomena, and with regard to the relation of "natural" diseases and drug diseases producing similar phenomena. These studies therefore pertain to and are part of homœopathy; and, by throwing light on the curative action of drugs, will not only limit, but will render more accurate the homœopathic method of treating disease.

To go back to paragraph 70 of the Organon. Hahnemann saw in the relief of symptoms the removal of the cause with a permanent cure. The Wassermann reaction in Syphilis has demonstrated the inaccuracy of this statement. The patient may be in a state of apparent health following treatment, but the Wassermann alone will tell us whether or not the patient is out of further danger, and whether we should continue the treatment. In other words physiological equilibrium can only be ascertained in certain conditions through biochemical reactions; and these biochemical reactions, in the absence of symptoms, can be our only guide to treatment. It will be argued that these reactions are objective symptoms; but this class of objective symptoms have not been developed or recorded in the provings of our materia medica. Consequently until these reactions are developed and incorporated in the materia medica the latter will continue to be incomplete, and a homœopathic method based upon it will continue to be as inaccurate as it is incomplete.

Let us suppose that typhoid fever develops in an individual in whom it has been previously shown that bryonia produced a strong Widal reaction while no reaction was produced by hyocyamus. We should be tempted to prescribe bryonia in this case even though the totality of the symptoms called for hyocyamus. This is homœopathic treatment, yet it does not conform to the teachings of Hahnemann. Why? Because science has advanced during the last hun-

dred years, and homœopathy has advanced with it. Homœopathy is not a method but a field of scientific knowledge the study of which has evolved a therapeutic method based upon it. This method will continue to be influenced and modified by the advance of those fields of science which concern similar affections.

C. W.

OBITUARY

ALMENA J. BAKER-FLINT, M.D.

Dr. Almena J. Baker-Flint, one of our best known women physicians, passed away June 27th, 1914, after an operation for appendicitis performed in May.

Dr. Baker-Flint was born at Winter Harbor, Maine, April 5, 1842. She was married twice—early in life to Mr. William Baker, and later in life (1891) to Mr. D. B. Flint, a generous helper to Homœopathy.

Her life knew many struggles; but with indomitable energy and courage, she rose above them, and conquered.

Her early days showed the beginning of an unusual life which proved full to overflowing with good works, and showed an earnest endeavor to make the most possible out of it.

She chose medicine as her aim in life, and graduated at the B. U. School of Medicine in the class of 1876.

In medicine she proved a most useful woman, with wonderful tact, warm sympathy, and a generous, kind heart, that drew to her many who were suffering, and many who longed for wholesome advice and counsel. With her ability in medicine, these generous attributes of a rare and strong character, and an unusual charm, her practice became larger and ripened into great success.

So great was her influence over patients, that they followed her advice religiously, and became her devoted admirer and friends. Few women have had such opportunities for doing good. Especially in medicine, she held out the helping hand, over obstacles, to others, to perfect their education, and render their lives useful and profitable.

Her rare power of stimulation often opened the way to success and happiness, and there are many who bless her memory.

In later years she gave up the practice of medicine, and devoted her life to charities, and societies whose object was the uplift of humanity. She was an active member of the Women's Educational and Industrial Union, The Mass. Society for the University Education of Women, and many others; but she always retained her interest in the medical school, and her membership in the many medical societies, and was a leader to help the cause of Homeopathy.

She won many honors, and occupied various offices in the medical societies. She was chosen a delegate, with Drs. Talbot, de Gersdorf and Thayer, to the International Convention of Homeopathy held in London.

She was on the medical staff of the Mass. Homeopathic Hospital for years, as electrician and consulting physician, and also, has long been on the Board of Trustees, of the hospital.

"And half redeemed, she needed not,
The changing of her sphere,
To give to Heaven the shining one
Who walked an angel here."

BOOK REVIEWS.

Local Anæsthesia. By Dr. Arthur Schlesinger, Berlin. Translated by F. S. Arnold, B.A., M.B.,, B.Ch., (Oxon.) 211 pages. $1.50 net. Rebman Co., New York.

Recent study and experimental progress have led to a greatly extended field of usefulness of the many local anæsthetics. This convenient little book, excellently printed in large type, offers opportunity to gain a profitable acquaintance with materials and technic. Theoretical considerations are largely omitted in this practical manual.

The first half of the book is given over to a discussion of the anæsthetics, adjuvants and methods of application including Schleich's infiltration anæsthesia, "nerve blocking," venous and arterial anæsthesia. In the remaining pages the procedures for operations on special regions are given. Although the use of local analgesics for neuralgias in various locations is applicable under the same anatomic principles no mention is made of these not strictly operative measures. Seemingly a large field for local anæsthesia is offered by the female genital tract yet this receives scant attention. Plates and diagrams are few in number.

S. B. H.

REVIEW OF MEDICAL JOURNALS.

The Hahnemannian Monthly, June, 1914.

1. *The Unsuspected but Poisonous Primrose.* J. C. Guernsey.

This plant, *primula obconica* should not be confounded with the common cowslip, *primula veris* or *officinalis*. It causes skin symptoms nearly indentical to those of poison ivy.

2. *Some Experiments with Radium.* F. C. Benson, Jr.
3. *Erythema Induratum: Its Manifestations and Treatment with Appended Descriptive Homœopathic Remedies.* R. Bernstein.
4. *Some Sheet Anchor Remedies in Children's Diseases.* W. J. Blackburn.
5. *Dry Hot Air Treatments.* J. A. Burnett.

This measure is said to be almost specific for all kinds of rheumatism, many joint troubles, old leg ulcers, etc. The author does not mention its value in acute streptococcic infections. The dry heat can be tolerated at 500° F. as contrasted with the usual maximum of 140°-170° F. using moist heat.

6. *Uterine Hæmorrhage.* W. C. Mercer.
7. *Some Hints on Chronic Suppurative Otitis Media.* G. J. Alexander.

The Hahnemannian Monthly, July, 1914.

1. *The Medicine of Experience of Most Value.* E. C. Price.
2. *Infant Feeding.* J. P. Cobb.
3. *New Variations on an Old Theme.* O. S. Haines.

Haines' remarks pertain to the medical college curriculum.

[Reviewer's Note.] Why have a title for a supposedly scientific paper, when none could guess from reading it what the author might be talking about.

4. *Homœopathy on the Firing Line.* W. A. Boies.

". . . . I predict the day not far distant, when the banner of homœopathy will float from sea to sea and pole to pole, and when the eyes of the suffering grow dim and the steps feeble and the brow feverish, through the clouded vision of pain, they will look to the unchangeable law and will be able to mount up with wings as eagles, will run and not be weary, will walk and not faint."

[Reviewer's Note.] Such theologic fervor especially when not reinforced by a single original thought is as useless on the "firing line" as would be a thesaurus in the hands of an illiterate.

5. *Diagnosis of Pulmonary Tuberculosis from Symptoms and Physical Signs.* W. S. Mills.

A brief review considering the salient points only.

6. *Sex Hygiene; Sex Education; Eugenics. A Protest.* J. R. Horner.

Early development of obedience, respect and confidence; instruction given to the individual and not to a whole class; volitional acceptance of laws; these are essential. "So long as men are attracted by beauty and women by strength, there is no need to be alarmed for the future. . . . Less eugenics and more old-fashioned love is what the race needs."

7. *Binet and Simon Method of Measuring the Development of the Intelligence of Young Children.* A. R. Garner.
8. *A Few Points on Infant Feeding.* V. A. H. Cornell.
9. *Headache.* O. K. Grier.
10. *In Memoriam.* James H. McClelland, M.D., D.Sc.

S. B. H.

The Medical Century, May, 1914.

1. *Upper Abdominal Symptoms and Their Interpretation.* D. T. Smith, M.D.
2. *The War on Cancer—The Various Treatments—Potassium, Radium and High Frequency.* E. Mather, M.D., LL. D.

[Reviewer's Note.] This brief column reads as if it were a transcription from the notes of an inadequately educated stenographer.

3. *Sectarianism in Medicine.* Wm. Tod Helmuth, M.D.

This was the presidential address delivered at the annual meeting of the

Homœopathic Medical Society of the State of New York, Feb. 12th, 1889, and is very well worth reading.

We would suggest that the statement—"I am a specialist in medicine," is, at the present time, more proper than "I am a sectarian in medicine."

4. *The Medical Examination of School Children.* J. B. S. King, M.D.

This consists of excerpts from the article which was published in the *Medical Advance,* March, 1914. S. B. H.

The Medical Century, June, 1914.

1. *Homœopathy vs. Surgery.* A. B. Smith.

As an excuse for thus making opponents of two specialties in medicine, Smith believes that the necessity of surgical interference may be avoided in many cases if the indicated remedy is given an intelligent trial.

2. *Gleanings.* L. Peck.

A discussion of drugs in uterine hæmorrhage and in vertigo forms the substance of this paper. The title is ludicrous in its inadequacy.

3. *Practical Experience with Homœopathic Remedies.* W. A. Humphrey.
4. *Ease the Accursed Hour.* W. W. Osgood.

With a fruit diet, exercise, etc., with four drops daily of macrotys during the last month of preganancy if no other remedy is indicated, and with two fifteen drop doses of tincture of jaborandi when labor begins,—Osgood states that his cases "pass through the trying hours with less than one half of the suffering or duration otherwise occasioned" in unassisted cases.

5. *Syphilis of the Nervous System.* D. M. King.

A brief but intelligent review of diagnosis and treatment.

6. *Piper Nigrum.* B. Johnson.
7. *Puzzling Cases.* F. W. Hammond.

The Medical Century, July, 1914.

1. *After the Operation.* T. G. Yeomans.

A discussion of diet, drugs and instructions to the patient.

2. *Arteriosclerosis.* A. E. Hinsdale.

Hinsdale treats of homœopathic therapeutics chiefly, giving baryta mur., ergotin, glonoine 3x and plumbum first rank.

3. *Symptoms of Chronic Venereal Diseases.* W. W. Osgood.
4. *Obstetrical and Surgical Medication.* O. R. Gregg.
5. *Public Medical Welfare.* J. A. Evans.
6. *The Laboratory.* B. Trew.
7. *A Polychrest Restudied.* B. S. Partridge.

S. B. H.

The Medical Century, August, 1914.

1. *President's Address—Missouri Institute of Homœopathy.* S. Parsons.
2. *Supplement to the Dictionary of Materia Medica.* J. H. Clarke.

The introductory chapter, and a consideration of acetic and aconite acid

3. *Vaginal Cæsarian Section.* C. B. Kinyon.
4. *Homœopathy in Allopathic Textbooks.* G. W. Coffman.

Comment on quotations from Potter's "Materia Medica, Pharmacy and Therapeutics." The editor of the *Medical Century* states that "Dr. Potter was a homœopathic graduate and became a renegade because of pique. He carried some of his homœopathic into all allœopathy but never acknowledged its genesis."

5. *Preputial Adhesions in Little Girls.* J. A. Burnett.

S. B. H.

The Pacific Coast Journal of Homœopathy, July, 1914.

1. *President's Address, and Proceedings of the California State Homœopathic Medical Society.*
2. *The Early Recognition of Psychosis.* O. G. Freyermuth.

An elaborate twenty-eight page article on this difficult subject.

S. B. H.

The North American Journal of Homœopathy, August.

1. *Underfeeding of Infants.* Minton, H. B.
2. *The Cystoscope.* Kaufman, L. R.
3. *A. I. H.* Wilcox, DeW. G.

The Journal of the A. I. H.

1. *Immortality—Personality, In Memoriam—James H. McClelland.* Van Baun, W. W.
2. *Gaius J. Jones—A Tribute.* Baxter, H. H.
3. *Putting Away Childish Things—Presidential Address.* Wilcox, DeW. G.
4. *Presidential Address.* Dowling, J. I.
5. *Infant Welfare Work of Today.* Cameron, A.
6. *The Definition of Homœopathy.* Krauss, J.
7. *The Question of the Hereafter from the Physical Standpoint.* Runnels, O. S.
8. *Editorials.* Hobson, S. M.

The Academic or the Larger Meaning of Homœopathic Practice. The author makes a plea for dropping the diphthong in homœopathy, citing authorities on philology whose opinions should carry much weight. A consideration of the meaning of the term homœopathy is merely touched upon.

S. B. H.

The Journal of the American Institute of Homœopathy, June, 1914.

1. *Drug Proving Methods of the Future.* P. Rice.

Rice emphasizes the necessity for careful analysis of the organization of the provers.

2. *Diagnosis and Treatment of Auto-Intoxication.* J. R. Horner.
3. *Medical Colleges and State Boards.* J. P. Cobb.
4. *Psychotherapeutics.* C. F. Clark.
5. *Homœopathic Treatment of Gall Stones.* G. W. Anderson.
6. *Case of Papillary Cystadenoma of the Ovary Complicating Pregnancy.* F. N. Ward.
7. *Tendon Transplantation.* E. P. Mills.
8. *Urinary Tuberculosis.* J. Krauss.
9. *Uterine and Ovarian Displacements.* B. Gurney.
10. *X-Rays in the Diagnosis of Diseases of Bones and Joints.* E. H. Grubbé.

July, 1914.

1. *Organizing the American Institute into a Federal Government.* D. G. Wilcox.
2. *The Purpose of the Institute.* E. Harper.
3. *The Year's Progress in Therapeutics.*
4. *Present-Day Clinical Medicine.* E. L. Nesbit.
5. *A Chapter from a Possible Work on Border-Land Diseases.* J. C. Wood.
6. *Shock.* B. J. Sanford.

S. B. H.

The British Homœopathic Journal, June, 1914

1. *Recent Experiments in the Field of Homœopathy.* Wheeler, C. E.

This paper is a report on the work of the Beit Research Fund of the British Homœopathic Society. The first part of the work deals with experiments attempting to demonstrate the power of the simillimum to favour the formation of specific antibodies. The experiments are similar to those of Mellon and Hooker in their aim, but are decidedly primitive in comparison. The report lacks detail, and the discussion lacks accurate references. Furthermore there seems to have been little system in the work which accounts in part for the "tantalizing results." The second part of the work deals with experiments attempting to demonstrate activity in the higher potencies. The author has investigated Arndt's formula of the effect of stimuli on protoplasmic activity. Here again the work appears unsystematized, which obscures the results. Nevertheless, certain phenomena were produced which

should stimulate further investigation. The experiments, though elementary deserve encouragement and praise; but we suggest that a careful study of the subject, and especially the works of others along these lines, be instituted along with the further self-sacrificing and much appreciated work of Dr. Wheeler for the Beit Research Fund. Realizing as we do that the author made these experiments before consulting Mellon's work, we feel that he might have saved much time and labor had he gone on with Mellon's work, and his results might have given us more than they do. Those of us engaged in research should aid one another by giving accurate references to works and authors cited.

2. *Some Notes on Fibrositis.* Reed, W. C.
3. *A Case of Vesicular Mole Associated with Multilocular Lutein Cysts of Both Ovaries.* Neatby, E. A. C. W.

The British Homœopathic Journal, July, 1914.

1. *Dilated Stomach.* A. E. Hawkes.
2. *A Study of Lachesis Trigonocephalus.* S. C. Ghose.
3. *The Production of Radium and the Treatment with Radium at Kreuznach.* B. Kranz.
4. *Clinical Notes on Radium Water.* T. E. Purdom.
5. *Cases from Hospital Practice.* T. M. Neatby.

Lieno-lymphatic leukæmia, pyloric and duodenal adhesions, tabes mesenterica are among the cases cited. S. B. H.

The Homœopathic World, June, 1914.

1. *Kent's Repertory.* M. Tyler.

A guide to its use. The gist of the method is to "get the strong, strange, peculiar symptoms and then see to it that there are no 'generals' in the case that oppose or contradict."

2. *The Medical Aspects of a Medico-Social Problem.* (Concluded.) T. M. Neatby.

Neatby urges extended research into the causes of sterility, ante-natal deaths and infant mortality in order to be able to correct the medical causes of the falling birth-rate.

The Homœopathic World, July, 1914.

1. *Recent Experiments in the Field of Homœopathy.* C. E. Wheeler.

Reviewed in this number of the GAZETTE from Brit. Hom. Journal, June, 1914

2. *How I Became a Homœopath.* A. T. Cunningham.
3. *A Chronic Stomach Case.* M. Tyler.

In fifteen months four doses of arsenic 200 were followed by recovery. No attempt at a diagnosis is mentioned.

The Homœopathic World, August, 1914.

1. *Report of the Annual Congress of Homœopathic Physicians.*
2. *The International Homœopathic Council's Year.* G. Burford.
3. *Homœopathy in the Salvation Army.* M. Tyler.
4. *Eleventh Annual Meeting of the London Missionary School of Medicine.*

S. B. H.

The Eclectic Medical Journal, June, 1914.

1. *Iritis, Glaucoma and Conjunctivitis.* R. C. Hefleblower, M.D.
2. *Delusions of the Insane.* W. E. Postle, M.D.
3. *Diphtheria.* W. N. Mundy, M.D.
4. *Stramonium.* J. Fearn, M.D.
5. *More About the Climate of the North Pacific Coast.* H. L. Henderson, M.D.
6. *Remedies for Albuminuria.* H. T. Webster, M.D.

A brief general discussion chiefly concerned with helonias.

7. *Sore Legs.* A. F. Stephens, M.D.

The Eclectic Medical Journal, July, 1914.

1. *Complications of Gonorrhœa in Women.* J. E. Holman, M.D.
2. *Fracture of Neck of the Femur.* D. W. Humphreys, M.D.
3. *Aftermath of Pituitrin.* H. T. Webster, M.D.
4. *Female Complaints and Remedies.* N. M. Dewees, M.D.
5. *Nux Vomica in Gastro-Intestinal Disorders.* C. F. Yauman.
6. *The Use of Strychnine Salts.* W. S. Glenn, Jr.

S. B. H.

The Eclectic Medical Journal, August, 1914.

1. *Pellagra.* G. T. Fuller.
2. *Empiricism.* J. U. Lloyd.
3. *Pseudo-Diphtheria.* J. C. Andrews.
4. *Pertinent Facts in Sexology.* J. D. Dodge.
5. *Matricaria Chamomilla.* J. D. Quinn.
6. *Address to Kentucky State Eclectic Medical Society.* J. M. Wells.
7. *Phytolacca in Adenopathy.* R. E. Powers.
8. *Patience in Obstetric Practice.* S. M. Sherman.
9. *Sanitation.* P. D. Bixel.
10. *Minor Ailments of the Eye.* J. B. Barker.

S. B. H.

The Clinique, January, 1914.

1. *Heart Load or Overload.* H. V. Halbert, M.D.
2. *Iris Versicolor.* A. L. Blackwood, M.D.
3. *Dont's in Obstetrics.* B. P. Nair, M.D.
4. *Blood Pressure.* L. T. Rhoads, M.D.

[Reviewer's Note.] Rhoads says:—"In a word, strike at the underlying causes of the trouble" in the treatment of hypertension. He customarily gives calomel or podophyllin and follows it with "Abbott's Saline Laxative." He "finds it expedient" to stimulate the liver secretions "about three weeks out of every month" and buys the following nostrum "in quantities:"

Each dram contains: Chionanthus, 6 grains; podophyllum, 3 grains; euonymus, 3 grains; baptisia, 3 grains; iris versicolor, 1½ grains; leptandra, 1½ grains.

Sig.—One-half to one teaspoonful, well diluted, before each meal.

It is said to be "palatable." It certainly is mediæval. We mourn the omission of reasons for its "expediency," and we wish that we might find some obsolete textbook on veterinary therapeutics in the hope that it would contain a discussion of the imagined efficacy of such a conglomeration.

Another "favorite prescription" is: Potassium iodide, 3, drachms; sodium nitrite, 40 grains; aqua dest., quantity sufficient to make 2 ounces.

Sig.—One-half teaspoonful, diluted, after meals. Start with 20 drops, if the stomach is delicate.

It has been shown (Capps; The Journal A. M. A., October 12, 1912, p. 1350) that in therapeutic doses, K I is not an active vasodilator, does not affect blood pressure materially when long continued, and does not alter the viscosity of the blood to any marked degree. It may be useful in syphilitic sclerosis and, though Rhoads does not mention the fact, iodine, iodides or hydroiodic acid in small doses—may stimulate the activity of the thyroid; since one of the functions of the secretion of this gland is to cause a lowering of blood pressure, the action of K I *may* be explained in this way. Rhoads says the action of sodium nitrite is "prolonged, and there is no bad after-effect." Its action is sometimes prolonged slightly over an hour, and its after effect is probably no greater than is that of any agent which produces a similar paralyzing effect upon smooth muscle. Its action is wholly palliative, is often harmful in that it antagonizes what is many times a purely compensatory effort on the part of the heart, and tolerance is soon established so that larger doses must be used. In using vasodilators it is well to remember that too great a reduction of the blood pressure—especially of the pulse pressure—commonly results in renal insufficiency, anuria, uræmia, death:—a warning which Rhoads fails to sound.

Neither can we recommend the use of K I and Na NO_2 in combination. In the presence of acid, as in the stomach, the action of the nitrous acid, formed from the nitrite, is to decompose the K I and liberate free iodine, a highly corrosive and irritant poison. Another disadvantage of the sodium nitrite is the gastric irritation which it causes, and an embarrassed stomach is hardly a desideratum in a condition where faulty digestion and assimilation supposedly play such important causative rôles.

Rhoads also advocates the use of 20-grain doses of sodium bromide to control the insomniac manifestations of arterial hypertension. This means further depression of a system already subjected to undue stress.

Why not at least mention such remedies as lead, ergot, gold, conium and barium? One need give no more valuable space to a discussion of their action than was given to the "liver stimulants," and certainly the principle according to which they supposedly act could be inferred.

When we compare the methods which Rhoads commends with his dictum "to strike at the underlying causes of the trouble," we marvel at his therapeutic strabismus. The value of all of our medical journals or any journals or actions would be immeasurably enhanced if we would curtail the recital of empirical methods, of grossly crude symptomatic treatment, and devote the additional time, space and effort to the consideration of methods which have "clearly intelligible reasons" for their use.

S. B. H.

The Clinique, June, 1914.

1. *The Conservation of Nerve Force.* H. V. Halbert.

Rest, a sufficiency of food, occupation, "proper" environment and a correct mental attitude embracing modesty, self-control and contentment, are the conditions which make for conservation.

2. *Pragmatic Eugenics.* S. M. Hobson.

The unconscious daily home training in virtue of the character of the parents themselves is the strongest factor in child culture.

3. *Two Months' Surgical Obstetrics in Cook County Hospital.* G. Fitzpatrick.
4. *Puerperal Mania—Its Causes, Consequences and Treatment.* T. Bacmeister.

The Clinique, July, 1914.

1. *Address of President of Illinois Homœopathic Medical Association.* J. W. Calvert.
2. *Intolerance of Vascular Excitement by Neurasthenics.* S. Leavitt.
3. *Hypothyroidism.* H. V. Halbert.
4. *Adenoids.* S. S. Knox.
5. *Hyperchlorhydria.* H. C. Irvin.

This and the preceding essay are by senior students in Hahnemann College, Chicago.

The Clinique, August, 1914.

1. *Benzole Treatment in Leukæmia.* J. P. Cobb.

A very brief review of the subject with details of one case apparently cured.

2. *Personal Observations on Infant Feeding.* H. O. Skinner.
3. *What Is It?* G. E. Dienst.

A case for diagnosis.

4. *President's Address, Wisconsin Homœopathic Medical Society.* W. N. Linn.
5. *Convergent Squint and Its Treatment.* C. A. Harkness.
6. *Trichinosis—A Case.* T. E. Costain.

S. B. H.

The Medical Advance, July, 1914.

1. *Christian Science and Homœopathy.* B. C. Woodbury.
2. *Theories.* J. B. S. King.

The article is chiefly taken up with a review of Ehrlich's side-chain theory.

3. *Cancer Problems.* J. Hutchinson.

The increasing number of cancer afflicts raises in Hutchinson's mind the

question of the possibility that carcinoma may be a sequel of vaccination or inoculation with bacterial products.

[Reviewer's note.] Only recently there was raised a howl by the prejudiced, to the effect that antityphoid vaccination in the army had resulted in more cases of tuberculosis—a fallacy which has been already illuminated.

4. *Reasons for protesting against the Bureau of Education furthering the political campaign of the privilege seeking.* A. M. A.
5. *The Evolution of Homœopathy.* C. M. Boger.

[Reviewers Note.]. We learn that "real cures are never made chemically." How real cures are made is not explained. We marvel at the attainment of such a lofty spiritual plane which permits one to overlook so serenely the results of *research* in immunology, a science which is presumably another "hideous idol, with feet of clay."

S. B. H.

Ophthalmic Record, August, 1914.

Abraham Lincoln. The diagnosis of Heterophoria not only from a portrait, but from the diplopia which occurred just after he was elected President of the United States in 1860. By E. E. Holt, M.D., Portland, Me.

I was very much interested in the article by S. Mitchell, M.D., of Hornell, N. Y., in the May Ophthalmic Record for 1914, as it recalls to mind my scrap book kept during the war of 1861-5, and an address delivered at the Auditorium, Portland, Maine, at the eleventh annual banquet of the Lincoln Club, February 12, 1901, in observance of the ninety-second anniversary of the birth of Abraham Lincoln. I said in part in this address:

An "illusion" which appeared to Abraham Lincoln has never been explained upon rational grounds, so far as my observations go.

J. S. C. Abbott, the historian, cites a quotation as coming from President Lincoln, in which the time of this "illusion" is given as occurring just after his nomination at Chicago, but J. G. Holland the historian, quotes from an article which appeared in Harper's Magazine for July, 1865, written by John Hay, one of his private secretaries, and now Secretary of State, placing the time just after his first election. In answer to my letter stating these facts, the Secretary of State writes me that Noah Brooks of Castine, Maine, at one time a private secretary of President Lincoln, is the authority for this statement. Mr. Brooks is out of the country, so his statement, at the present time as to the time of its occurrence, cannot be given. According to the latter authority, President Lincoln is reported to have said: "It was just after my election in 1860, when the news had been coming in thick and fast all day, and there had been a great 'hurrah boys!' so that I was well tired out and went home to rest, throwing myself upon a lounge in my chamber. Opposite to where I lay, was a bureau with a swinging glass upon it; and looking into that glass, I saw myself reflected nearly at full length; but my face, I noticed had two separate and distinct images, the tip of the nose of one being about three inches from the tip of the other. I was a little bothered, perhaps startled, and got up and looked in the glass, but the illusion vanished. On lying down again, I saw it a second time, plainer, if possible, than before, and then I noticed that one of the faces was a little paler, say five shades, than the other. I got up and the thing melted away, and I went off, and in the excitement of the hour forgot all about it,—nearly, but not quite, for the thing would once in a while come up, and give me a little pang as though something uncomfortable had happened. When I went home, I told my wife about it, and a few days after I tried the experiment again, when, sure enough, the thing come back again; but I never succeeded in bringing the ghost back after that, though I once tried very industriously to show it to my wife, who was worried about it somewhat. She thought it was a 'sign' that I was to be elected to a second term of office, and that the paleness of one of the faces was an omen that I should not see life through the last term."

Now this "illusion" like others that haunt people, as this did Abraham Lincoln, can be explained upon rational grounds when all the facts are known and rightly interpreted.

With the rapidly changing scenes in political events constantly presenting themselves for his consideration and action, after he was nominated and elected President, it seems cruel that he should have had the annoyance from this "illusion" added to his burdens, when it could have been explained upon rational grounds and set his mind at rest.

As he lay there upon the couch, every muscle became relaxed as never before. Little did he dream of the years of weary toil, care and anxiety that were to be his lot and the tragic death that was to take him off in the zenith of his career, a career that has fixed upon him the eyes of the whole civilized world, and has given him a place in the affections of the American people, unsurpassed in the history of this republic. In this relaxed condition, in a pensive mood, and in an effort to recuperate the energies of a weary mind, his eyes fell upon the mirror in which he could see himself at full length, reclining upon the couch. All the muscles that direct control, and keep the two eyes together were relaxed the eyes were allowed to separate, and each eye saw a separate and distinct image by itself. The relaxation was so complete, for the time being, that the two eyes were not brought together, as is usual by the action of the converging muscles, hence the counterpart presentment of himself. He would have seen two images of everything else had he looked for them, but he was so startled by the ghostly appearance that he felt a "little pang as though something uncomfortable had happened," and obtained but little rest. What a solace to his wearied mind it would have been, if some one could have explained this "illusion" upon rational grounds.

D. W. W.

ECHOES FROM THE ATLANTIC CITY MEETING OF THE INSTITUTE.

One of the most satisfactory features of the Atlantic City meeting of the American Institute were the daily press bulletins issued by the *Atlantic City Bulletin.* These reports were made possible largely through the indefatigable energy of Dr. Scott Parsons, President of the Missouri Institute of Homœopathy.

The following is a summary of that meeting taken from the July issue of the *Monthly Bulletin* of the Missouri Institute of Homœopathy:

The seventieth annual meeting of the American Institute was held at Atlantic City, N. J., June 28 to July 4. This was perhaps one of the most successful from all points that the Institute has had, and merely proves further what your editor has said many times before, that interest in homœopathy and homœopathic progress has awakened. The registration totaled something like 1,500, and delegates from every State in the Union, Canada, England, Germany, India and France. A feature, new this year, was the occupancy of the pulpits of the different churches, by representative men of the Institute, on the Sunday morning preceding the formal opening. These men, or physicians, gave talks on homœopathy. The same evening, memorial services were held at the First Baptist Church, and eulogies were delivered on the lives of James H. McClelland, of Pittsburg, and Gains J. Jones, of Cleveland, two ex-presidents of the Institute. These men had devoted their lives to the interests of homœopathy, and were teachers and practitioners of international reputation. Their places will be difficult to fill. The Institute lost, through death, thirty members in 1913-14. The business sessions opened Monday, June 29, at the Chalfont Hotel, and were held daily throughout the week, from 9 to 10.30 a. m.; the rest of the day and evening were devoted to scientific meetings of the various bureaus and sectional societies. The President's address was delivered at a special formal meeting, Monday evening, in the Auditorium, at the end of the steel pier. President Wilcox's address was one of the most important and practical messages ever delivered to the American Institute, and the salient points touching on the welfare, progress and development of the Institute show the aggressive and progressive mind of the man. That he is alive to the medical situation is proven by his utterances, and the manner in which he handled the reins of this administra-

tion. He has worked hard and faithfully the past year, and his efforts will bear fruit. The important points in his address touched on such vital subjects as constituting a Federal Government of the Institute, federating the city, county and state homœopathic societies with the mother body, the American Institute, publicity and education for the control of prostitution, vice and venereal diseases, instruction in personal or sex hygiene, eugenics, alcoholism, and fee-splitting. Another speaker of the evening was Dr. Petrie Hoyle, of London, secretary of the International Homœopathic Council. Gov. Emerson Richards officially welcomed the Institute to the state, while Mayor William Riddle, of Atlantic City, turned over the keys of the city. A reception and dance followed the formal exercises. Wednesday afternoon and evening was given over to pleasures. At 3 p. m. the members were taken for a deep sea sail, from Absecon inlet out upon the bosom of the deep, and those from inland had the opportunity of satisfying that craving that is inherent with most land-lubbers to ride upon the turbulent sea.

Wednesday night was devoted to special dinners. The Senate of Seniors held their annual banquet at the Chalfont Hotel. The Alpha Sigma held sway at the Schlitz; the Pi Upsilon Rho at the Marlborough-Blenheim, and the Phi Alpha Gamma at the Haddon. Missouri was well represented at the Phi Alpha Gamma fraternity, having present, Brothers Foster and Allen, of Kansas City, and Parsons, of St. Louis. The ladies were well provided for, and were entertained loyally and lavishly by the Atlantic City society women. There was something doing every day—cards, teas, golf, receptions, musicales, dances, dinners, touring parties, sailing parties, and other features, too numerous to mention. Friday night was Frolic Night, which consisted of a vaudeville performance, arranged by the local men. Professional and amateur talent vied for applause, and although nom de plumes were used, certain peculiarities and characteristics led one to believe that he knew many of the participants, and rightly too, for prominent members of the Institute were entertainers. It was some good show. Refreshments and dance followed.

The sessions closed Saturday, July 4, most of the members leaving for home in the afternoon. A number stayed over, stretching their visit to the Institute into a vacation of several weeks. It was one grand meeting, and full of life and activity from start to finish, and it seems a pity that the whole profession cannot attend and get a hypo of the pep and ginger that exists among the Institute men and women. You would have to go but once to get the fever, and the benefits accruing from your visit cannot be penciled nor measured by dollars and cents. Try it and be convinced.

American College of Surgeons.

Dr. James C. Wood, of Cleveland, chairman of the Committee on College of Surgeons, reported the work of that committee for the past year.

"The American Institute of Homœopathy," said Dr. Wood, "has been placed on the same basis and given the same recognition as the American Medical Association, Clinical Congress of Surgeons of North America, and other societies. Three subsidiary societies of the American Institute of Homœopathy, namely: The Surgical and Gynecological Society, the Obstetrical Society, and the Ophthalmological, Otological and Laryngological Society, are admitted and classed with the fifteen other societies now recognized by the college. Your committee believes that it is the intention of the Board of Regents and the American College of Surgeons to see that the homœopathic societies have a fair representation on both the Board of Governors and the Board of Regents. Your committee therefore recommends that the American Institute of Homœopathy pass a resolution endorsing the American College of Surgeons, and promise their support in promoting the objects and aims of that organization.

On June 22 last, the American College of Surgeons held their second convocation at the Bellevue-Stratford Hotel, Philadelphia. A half-a-million-dollar endowment fund is the aim of the college, for the erection of a permanent home, possibly in Washington, D. C. One hundred and fifty thousand dollars

was raised at this meeting. In the presence of a brilliant audience, 1,100 fellowships in the college were conferred.

The following homœopathic surgeons were present, and received the degrees:

Horace Packard, Boston; J. C. Wood, Cleveland; H. R. Chislett, Chicago; C. E. Kahlke, Chicago; W. B. Van Lennep, Philadelphia; W. H. Bishop, New York; G. W. Roberts, New York; D. G. Wilcox, Boston; D. A. Foote, Omaha; Scott Parsons, St. Louis; A. B. Norton, New York; Gilbert Fitzpatrick, Chicago; Burton Haseltine, Chicago; J. M. Patterson, Kansas City; W. D. Foster, Kansas City; W. T. Helmuth, New York; D. G. Tuttle, New York; H. D. Schenck, New York; W. G. Crump, New York; R. S. Copeland, New York; J. E. Briggs, Boston; N. W. Emerson, Boston; A. G. Howard, Boston; Winfield Smith, Boston; T. L. McDonald, Washington; H. E. Beebe, Sidney, O.; Sprague Carleton, New York; Burrk Carlton, New York; J. H. Fobes, New York; G. R. Southwick, New York; Sidney F. Wilcox, New York; W. F. Honan, New York; E. S. Bailey, Chicago; Charles E. Sawyer, Marion, O.; Charles E. Walton, Cincinnati; G. S. Coon, Louisville; J. F. Rankin, Brooklyn; M. A. Brandt, Milwaukee; A. G. Warner, Brooklyn; Elmer Bissell, Rochester, New York; C. H. Helfrich, New York; R. A. Steward, New York; G. D. Hallett, New York; G. A. Sheppard, New York; Gurnee Fellows, Chicago; E. J. George, Chicago; Peter S. Clark, Chicago; W. E. Waddell, Los Angeles; G. H. Quay, Cleveland; Alfred Lewy, Chicago; W. M. Stearns, Chicago; W. E. Boyton, Chicago; Howard Bellows, Boston; E. R. Bryant, San Francisco.

Three homœopaths from Missouri have qualified, received the degrees and the title F. A. C. S. They are: Wm. Davis Foster, Kansas City; J. M. Patterson, Kansas City; Scott Parsons, St. Louis.

Greetings from Over the Sea.

The following greeting was sent to the American Institute of Homœopathy by the International Homœopathic Council, through Dr. George Burford, who was president of the London International Homœopathic Congress of 1911:

"The fabric of Homœopathic Internationalism grows. How much history in International Homœopathy has been made in the past year will be brought to light at the assembly in August at The Hague, Holland. There plans for concerted action will be laid to make the wheels of the homœopathic machine go round.

"But actually the center of gravity in the homœopathic cause lies in the United States. The forces which control the enlargement of homœopathy converge at the meeting of the American Institute. Among you is the real dynamic, which uplifts and impels the homœopathy of the entire world.

"It is our business to make homœopathy prevail. That it will prevail, whether we help it or not, the laws which govern human development have decided. International homœopathy has come to stay, and we are brethren in the twin cause of homœopathy and humanity."

Report of the Council on Medical Education.

The report of the council on medical education was presented by the chairman, George Royal, of Des Moines, Iowa, and embodied the following points:

"The result of the Institute's placing all its propagandistic and educational work in the hands of the council on medical education for five years has enabled the committee to formulate and initiate a program of action which for the first time in the history of this committee has begun to show gratifying results.

First—It has made easier the securing of pledges from the homœopathic profession and laity, because the committee could inform those contributing, what would be done with the money.

Second—It has made possible the obtaining of interest and attention of the business men because the committee could show where and how the money was to be sent.

Third—It has by its concerted efforts been able to search the philanthropist and present ideas at least of the happiness of their giving, and the benefits accruing therefrom.

Fourth—The year's work was completed and published, giving the colleges and statistics, and distributed to the Boards of Education, the faculties and press.

Fifth—Beginning of inspection for the grading of hospitals for the purpose of using the hospitals for internes, and further to obtain reliable statistics.

Sixth—Uniting the homœopathic profession in Kansas City and vicinity, incorporation of body to take charge of a new college and hospital building; selection of Board of Directors to have charge of distribution. Preparing the way to raise money, and building during the coming year, meanwhile buying new apparatus and bringing present college up to the standard requirements.

Seventh—Establishing in Ohio State University, a college of homœopathy with six full-time professors and a dean, and securing appropriation to pay salaries of professors and assistants. Affiliation between Cleveland Pulti Homœopathic College and the Ohio State University, so that these two colleges will retain rights and privileges, and the Alumni of these two colleges to be known in future as O. S. U. The curriculum is being prepared and the faculty selected, and the college will be prepared to receive students at the opening of the university next fall.

"The committee suggests," said Dr. Royal, at the Institute meeting Wednesday: "First, that the work of reorganizing the forces of the Kansas City College, now under the direction of Mr. Arthur Warren Smith, be continued.

"Second, that a survey of the several states be taken for the purpose of determining the men and property.

"Third, to complete the work of inspecting and grading homœopathic colleges and hospitals."

Meeting Place for 1915.

The selection for meeting place for 1915 has not yet been decided upon, but the choice rests between New Orleans, La., Long Island Beach, L. I., Portland, Ore., St. Louis, M., and Chicago, Ill.

The Board of Trustees favor Long Island Beach, while the other cities have strong supporters among the members of the Institute. The Panama Canal in the south and the San Francisco Panama Exposition are strong attractions, while the accessibility of Long Island Beach and probability of a very large attendance are urged as a plea for the east.

The invitation from New Orleans comes through Dr. Ed. Harper, of New Orleans, and in addition to the commodious quarters, adequate hotel facilities and the salubrious salt air from the Gulf of Mexico, he adds as an extra inducement, the opening of the Panama Canal, which takes place in 1915. "This," said Dr. Harper, "is the greatest engineering feature of the twentieth century, and is destined to open a traffic to and through the south, of unknown proportions. New Orleans will be the gateway to the Panama Canal, and those visiting the San Francisco Exposition could have the advantage of an all-sea route, a most delightful trip through the canal and up the Pacific coast to San Francisco. We want and need the Institute in the south."

Byron E. Miller, of Portland, Ore., president-elect of the American Institute, is back of the Portland, Ore., invitation, and perhaps has the call. He extended an invitation last year at the Denver meet, and renewed or followed it up this year at Atlantic City. "Travel next year," he said, "will be to the Pacific coast, and unusually low rates will prevail." The Board of Trustees could not decide definitely, and the selection of a meeting place for 1915 was laid over until the December board meeting.

Among the Happenings.

Last May your President, at the Kansas City meeting of the Missouri Institute, in his address, proposed the federating of the city, county and state homœopathic societies into one big federal government with the mother body —the American Institute. The Committee on President's Address recommended that the Missouri Institute adopt the idea, and also recommended that a special committee be appointed to take up the matter with the American Institute. President Wilcox, of the American Institute, who was present at the Kansas City meeting, commended the idea, and went further, in that he recommended the reorganization of the American Institute, and in his President's address presented ways and means for federating all the independent homœopathic societies into a general federal government.

The recent establishment of a homœopathic department in the Ohio State University is a fact which should bring much satisfaction to the homœopathic fraternity of this country. Not only does it perpetuate the oldest homœopathic medical college in this country, but it practically assures its perpetuity by thus making it a part of an old and well established State University.

Both the Cleveland Homœopathic Medical College and the Pulte Medical College were early in the field of medical instruction, but they have not been able to keep pace with the larger demands made upon the modern medical college, particularly as to finances and University affiliations.

The new Faculty consists of: Dr. Claude A. Burrett, Ann Arbor, Michigan, Ph. B. Syracuse University, M. D. Cleveland Homœopathic Medical College, General Surgery and Clinical Surgery; Dr. Albert E. Hinsdale, Bay City, Michigan, A. B. and M. D. University of Michigan, Materia Medica and Clinical Therapeutics; Dr. Fred. B. Grosvenor, Cincinnati, Ohio, M. A. Ohio State, M. D. University of Michigan, Clinical Laboratory and pro tem Instructor in Theory and Practice; Dr. William A. Humphrey, M.D., Toledo, Ohio, Diseases of Women, Surgical Gynæcology and Obstetrics; Dr. J. A. Ferree, M.D., Dayton, Ohio, Ophthalmology, Otology, Laryngology and Rhinology.

These gentlemen will remove to Columbus at the opening of the college year.

FROM MONTHLY CYCLOPEDIA AND MEDICAL BULLETIN. JULY, 1913.

An Appreciation of the Teachings of Dr. Abrams, by Dr. J. Madison Taylor.

"Dr. Abrams has focused our attention on one, in my opinion, likely to yield increasingly valuable returns—that of the scope and significance of the spinal reflexes. In his book will be found an impressive aggregation of convincing evidence. The light which Dr. Abrams' researches afford is the largest source of illumination—and I, for one, welcome it with thankfulness."

PERSONAL AND GENERAL ITEMS.

Dr. Thomas E. Chandler has removed his office from 374 Marlborough St. to 19 Bay State Road, Boston.

Dean John P. Sutherland of the Medical Department of Boston University, and Dr. J. Emmons Briggs, Professor of Clinical Surgery, with Mrs. Briggs, reached Boston from Liverpool on August 30 on the Cunard steamer "Franconia."

Dr. Edwin W. Smith has removed his office to 19 Bay State Road, Boston.

Dr. Wm. B. Van Lennep has resigned from the deanship of Hahnemann Medical College of Philadelphia and has been succeeded by Dr. Wm. A. Pearson, Professor of Chemistry and Toxicology. The new dean has been closely associated with Dr. Van Lennep in college management and is therefore well trained for the position. Dr. Van Lennep will continue his professorship in Surgery.

Dr. Caleb S. Middleton, formerly of Philadelphia, but recently of Ardmore, Pa., died at the latter place in June of the present year, aged seventy-six years. He was a graduate of Hahnemann of Philadelphia and had been in practice for fifty years.

Dr. Mary A. Leavitt has removed her Boston office from 419 Boylston St., to 19 Bay State Road.

Dr. F. N. Beardslee, B. U. S. M. 1899, is assistant physician at Norwich, State Hospital, Norwich, Connecticut.

Dr. David M. Gardner, B. U. S. M. 1900, has removed from Milford, Massachusetts, to Andover, New Jersey. He has been appointed school physician at that place and also for the township of Green, N. J.

Dr. Cosa D. Haskell, B. U. S. M. 1913, having finished her term of service at the Massachusetts Homœopathic Hospital, has returned to her home in Ord, Nebraska.

Dr. Max Goldman, B. U. S. M. 1913, has opened an office in the Allen Chambers, 1 Allen St., West End, Boston.

Dr. Harry A. Watts has removed from Sacramento, California, to 1530 West Monroe St., Chicago.

Dr. Lemuel C. Grosvenor, who during the last years of his life resided in Taunton, Massachusetts, died in that city on July 15 of the present year, aged 82 years.

It is reported that Boston University School of Medicine will benefit to the amount of $5000 by the will of the late Dr. A. J. Baker-Flint, whose obituary appears in this issue.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX OCTOBER, 1914 No. 10

ORIGINAL COMMUNICATIONS.

SOME MODERN SOCIOLOGIC PHASES TENDING TO CRIMINALITY. *

By Frank C. Richardson, M.D., Boston, Mass.,
Professor of Neurology and Electro-Therapeutics, Boston University.

Crime has been defined as "a failure or refusal to live up to the standard of conduct deemed binding by the rest of the community."

It may safely be asserted that the germ of crime is universally present in mankind, ever ready to show under conditions favorable to its growth.

Happily the fatal consequences that would otherwise be inevitable are checked by the gradual growth of inhibitory processes, such as prudence, reflection, a sense of moral duty, and in many cases the absence of temptation.

From this Dr. Nicholson deduces that "in proportion as this development is prevented or stifled, either owing to an original brain defect, or by lack of proper education or training, so there is the risk of the individual lapsing into criminal-mindedness or into actual crime."

The seed is thrown, so to speak, into a hot-bed where it finds congenial soil in which to take root and flourish.

Crime has its genesis in three dominant mental processes. These are malice, acquisitiveness and lust. Malicious crimes may be amplified into offenses against the person originating in hatred, resentment, violent temper, and rising from mere assaults into manslaughter and murder.

Crimes of greed and acquisitiveness cover the whole range of thefts, frauds and misappropriation; of larcenies of all kinds; obtaining by false pretenses; receiving stolen goods; robberies; house-breaking; burglary; forgery and coining.

Crimes of lust embrace the whole range of illicit sexual relations, the result of ungoverned passion and criminal depravity.

* Presented at the Atlantic City 1914 meeting of the American Institute of Homœopathy,

The proportions in which these three categories are manifested have been worked out to give the following figures:—

Crimes of malice 15 per cent.
Crimes of greed 75 per cent.
Crimes of lust 10 per cent.

Authorities:—A. McDonald, "Criminology," (N. Y., 1893).
A. Drähms, "The Criminal," (N. Y., 1900).

Acceptance of the theory advanced by Lombroso of a criminal type, the "instinctive" or "born" criminal, a creature who had come into the world predestined to evil deeds, and who could be recognized by certain stigmata, certain facial, physical, even moral birthmarks, the possession of which foredoomed him to the commission of crime, would break down the whole doctrine of free-will.

A French savant declared that Lombroso's portraits illustrating criminal types were very similar to the photographs of his friends. Save for the dirt, the recklessness, the weariness and the misery so often seen on it, the face of the criminal does not differ from that of an honest man.

Such theory cannot obtain general acceptance because it gives no importance to circumstance and passing temptation, or to domestic or social environments, as affecting the cause of crime. Dr. Nicholson, of Broadmoor, has said that "if the criminal is such by predestination, heredity or accidental flaws or anomalies in brain or physical structure, he is such for good and all; no cure is possible, all the plans and processes for his betterment, education, moral training and disciplinary treatment are nugatory and vain." No weight can then be given to evil example, or unfavorable social surroundings in moulding and forming character, particularly during the more plastic periods of childhood and youth.

The study of criminology has gone far to satisfy us that the true genesis of crime is not to be sought in the anatomical peculiarities of individuals, and that in fact there are no people who under "any social conditions whatever and of any nationality at no matter what epoch would undoubtedly have become murderers and thieves." On the contrary it may be safely assumed that many such would have done no wrong if they had, *e. g.*, been born rich, had been free from pressing needs that drove them into crime, and had escaped the evil influences of their surroundings.

Enrico Ferri has classed the entire body of criminals into five categories:—criminal madmen, born criminals, criminals by contracted habits, occasional criminals and criminals of passion.

Crime as purely the result of disease undoubtedly exists, but the insane criminal, the instinctive criminal and the habitual crim-

inal do not constitute the great bulk of those who offend against the law.

Ferri well says, "No crime, whoever commits it, and in whatever circumstances, can be explained except as the outcome of individual free-will, or as the natural effect of natural causes. Since the former of these explanations has no scientific value, it is impossible to give a scientific explanation of a crime (or indeed of any other action of man or brute) unless it is considered as the product of a particular organic and psychical constitution, acting in a particular physical and social environment."

Every man, however pure and honest he may be, is conscious now and then of a transitory notion of some dishonest or criminal action. But with the honest man this notion of crime, which simultaneously summons up traditional teachings of morality and expediency with which he has been surrounded, will, if he is physically and morally normal, be immediately discarded. With the man who is less normal, who is endowed with a less vigorous moral sense, or whose teachings and examples have been those of legal and social leniency, the notion dwells and finally prevails.

No consideration of the fundamental causes of crime would be complete without a study of its anthropological factors and its social factors.

Such complete consideration would, obviously, be impossible in a paper appropriate to this occasion. The scope of this writing will, therefore, be limited to a consideration of some present-day phases of public opinion, social manners and customs which, it seems to the writer, may contribute to the establishment of a popular attitude of license and leniency which is conducive to crime.

Reference to a recent "Report of The (Mass.) Commission to Investigate the Question of The Increase of Criminals, Mental Defectives, Epileptics and Degenerates" shows that while the gravest crimes can for the most part be traced to congenital originality, the slighter, but far more frequent offenses of an occasional character,—"the microbes of the world of crime"—are the more direct outcome of social environment.

Since social factors have special import in occasional crime and "crime by acquired habit," and since these are the most numerous sections of crime as a whole, it would seem evident that no social custom of general adoption is too trivial to merit attention.

In their zealous exploitation of "the white slave traffic," "the social evil," eugenics, etc., legislators and reformers apparently lose sight of primary social influences the removal of which would

go farther toward social defense than any penal code they may be able to draft.

For example, does it not seem that a repressive campaign against crimes of lust might reasonably include the suppression of the present mode of dress almost universally adopted by women? Why should we ignore or treat as a joke fashions which profane our civilization and are an indecent assault upon our common sense?

Admittedly designed for the Paris demi-monde, the costumes worn by our women would seem to exhaust every expedient tending toward sex attraction. There would almost seem to exist a rivalry as to how far the female form divine may be publicly disclosed without infringing the law against indecent exposure. Remove just a little drapery and nothing is left to the imagination.

As was recently said in criticism of the present mode before the General Federation of Women's Clubs—"No matter if the neck be exposed nearly to the waistline, and the limbs nearly half way to the knees, if only the style be followed, health and suggestiveness are lost sight of in the craze to be in fashion."

Woman is the natural and acknowledged custodian of morals. It is she who fixes the standard of modesty—a variable standard it is true, different in ages and countries, but always sufficiently well defined. She draws across the path of passion, lines limiting on the one hand the license of masculine approach, on the other the liberty of feminine concession. To a certain extent man may blamelessly accept whatever privileges she is pleased to accord him without troubling himself to consider too curiously their consistency with the general tenor of her decrees. It is her discretion in such matters that must in a large degree preserve the race from fatal excess. When, therefore, she shamelessly violates this sacred trust which nature and society have confided to her it is to be expected that she will lose that without which her beauty and grace are but a curse—man's respect.

No careful observer can fail to conclude that the modern dances constitute a social ulcer which is a serious menace to morality and a potent factor in the production of crime.

That the modern dancing method has been the acknowledged avenue to the moral downfall of large numbers of wives and daughters who have been led captive by this craze of syncopation and laying on of hands, there can be no doubt.

As one of our ablest writers said of the waltz, "it is a war on physical health, it is a war on man's moral nature; this is the broad avenue through which thousands press into the brothel.

The dancing hall is the nursery of the divorce court, the training-ship of prostitution, the graduating school of infamy."

Lurid language, and yet this writer only saw the play of Hamlet with Hamlet left out, for the "tango" did not exist in his day.

Olans Magnus tells us that the young people of the North danced among naked sword-blades and pointed weapons scattered upon the ground; our young people dance among far deadlier dangers than these.

These dances defy description and unfortunately they are too familiar to require it. The very pose of the dancers suggests impurity and the various steps and movements are contrived with devilish ingenuity to excite the instincts of sex to action.

Add to these the hot and heavy air breathing upon the wriggling devotees in sensuous gusts of varying perfumes as a score of scented robes stir it into fragrance, the nudity of bust and arms, the contour of limbs more than suggested by the tightly clinging silk—they must be indeed sluggish in their sensibilities if not stirred to emotions which are more suitable for the conjugal chamber. It will be claimed that persons excited impurely by these dances would be immoral under any circumstances. "To the pure all things are pure"—yes, but purity is only a relative virtue whose value is fixed by the moral standard of the individual. What would be pure to some would be grossly impure to others, and we are taking big chances when we "hand our lilies of purity over to the arms of any one who may choose to blow the frosty breath of dishonor on their petals."

The writer once asked a middle-aged man who was waxing enthusiastic over the delights of the modern dance, how he would like to see his daughter indulging in such orgies? His reply was significant:—"Thank God! I have no daughters."

To such a pitch has the passion for this public sexual intimacy come that dances must be held at every social entertainment which is regarded as worth the trouble of attending. Hotels and restaurants advertise "Thé Dansant." The following press clipping well illustrates the extent to which this has been carried.

TANGO WORTH $50,000,000.

New York, June 22.—The dance craze has been worth $50,000,000 to the hotel and restaurant business, according to a prominent hotel man, who was chuckling yesterday.

It is curious that, in the midst of all the gossip about the fortunes scooped up by the agile-footed professional dancers this season, and the proud autobiographies of erstwhile bank clerks and stenographers who have danced their way from $15 to $500

a week, there has been little mention of the millions that the revival of dancing has meant to the places where people dance.

Louis Fischer smiled complacently yesterday evening when he was informed of the financial enormity of his deed.

"I could not tell the exact amount of money the tango has been worth to me," he said, "but I do know that it is the best thing that ever happened to the hotel business. Formerly, the restaurant was a place to eat; now, it is a place in which to be amused.

"It has been said that people do not eat as much in the restaurants as they used to. It is true that people take much longer for their dinner now than they used to because they are all the time jumping up to do a tango between courses. What they omit from the bill in the way of solid food, however, they make up in drinks.

"No, I do not mean intoxicating liquors. Drunkenness is on the decrease in American restaurants, and the dance is responsible. No man dares to go out on the floor unless his head is perfectly clear when he has to guide a lively young woman through the mazes of the intricate new dances. Another aspect of the drink question is that there are more women in public restaurants now than there used to be."

Another despatch in the same issue gives further testimony of the wide spread of the terpsichorean epidemic.

PREFER TANGO TO OCEAN AT BRIGHTON.
SWIMMING SUIT COSTUMES FOR DANCING ON SAND.
SOME OF THE YOUNG WOMEN WEAR THE "LAST CRY" IN BATHING ATTIRE.

New York, June 22.—Lured by a typewritten circular to the effect that 25 to 100 members of the National Women's Life-Saving League of America will be on duty at Brighton Beach every day of the swimming season, a reporter went female life-saver hunting there yesterday afternoon.

But it was at once apparent that the swimming season is not open or, at least, very widely open. There were large numbers of persons of both sexes and all ages in bathing suits, but they were not swimming. They were dancing on the beach.

Among the minority who looked as if they had recently plunged in the ocean were the members of a band on the board walk of the Brighton baths. But it was learned that they hadn't been near the water either. Their moist appearance was merely the result of their music-making efforts.

Every time the band stopped, all the tangoers did not stop. Those that did cheered and clapped their hands till the band struck up again.

Two or three fully dressed men were dancing with young women in bathing suits. One would be pardoned for thinking some of these young ladies were clad in the upper part of a decollete gown and a pair of stockings if one hadn't heard what they had on was the "last cry" in bathing suits. They looked like the last gasp in bathing suits."

The female participants in this salacious recreation are not women of the demi-monde, whatever the uninitiated spectator at their orgies may imagine, but matrons who are held spotless, and maidens who are counted pure, not only by the world in general, but by those husbands, fathers and brothers, whose eyes should surely be the first to detect any taint upon the character of wife, daughter or sister. Moreover, the social status of these people is not that of the rude peasant whose lewd pranks are the result of his ignorance, but that of the most highly cultivated and refined among us. These are the people who are expected to lead the world in all that is elegant and desirable; and the "Tango," forsooth, is one of their arts—one of the choice products of their ultra-civilization—brought to perfection by the grace with which God has gifted them, adorned by their wealth, and enjoyed by their high-strung sensibilities.

It must not be understood that all who dance do so from impure motives. Such is certainly not the case. Let us not, like Lycurgus and Mahomet, feel that we must cut down all the vines and forbid the drinking of wine because it makes some men drunk. There are undoubtedly very many men and women who can and do dance without an impure thought or action; who take a reasonable pleasure in one another's society and can rest content with such rhythmic graces as true refinement teaches them are modest, without leaping the bounds of decorum. But there exists in even the so-called "upper classes" of society a large number of those who without obvious mental or intellectual defect are possessed of marked immoral and criminal tendencies, and the license afforded by the modern dance furnishes them unrestrained opportunity for the practice of what might be termed social sensualism and the contamination of the hitherto innocent and undespoiled.

That the modern dance will be reformed is certain; that such reform will be slow in coming is equally certain, because it will be opposed by those who are optimists through ignorance as well as by those who know the veiled and subtle pleasures of the "Maxixe," the "Hesitation," the "One Step," etc., and find

"the fruit of the tree of knowledge" far too sweet to be hedged about as "forbidden."

Without question one of the most important factors in forming the habits of society and of determining its moral tone is the influence of woman. Whence comes this mighty power in woman for good or evil? It does not emanate from dazzling beauty nor from heroic attainment; not from the graceful plaything nor the useful drudge. Rather, it is an intangible, indefinite something, the outward expression of the spirit within, which makes of woman an inspiration to man and largely determines his mental and moral worth.

The modern so-called "feminist movement" by which women are pushed forward into the vocations and activities of men, which encourages them not only to participate in non-domestic, commercial, industrial and even political life, but also to imitate the vices as well as the manners of men, cannot fail to have a deleterious effect upon public welfare by vitiating those finer sentiments which hide behind the native veil of womanhood.

We hear much talk of woman's emancipation. Emancipation from what? Too often it is emancipation from those domestic and maternal virtues which go to make of woman the originator and conservator of all the world's greatest and best,—which render her capable of moulding the character of her children for the world's greatest good; which fit her for the function of forming the habits of society and aiding in its moral uplift.

It does not seem reasonable to suppose that the present trend of thought and action engendered by the "feminist movement" provides a desirable foundation for the character of her who now, more than ever before in the world's history, is needed to be the moral and intellectual support of the world's workers. Today more than ever, because the modern strife for transcendent excellence makes specialism a necessity in life's busy activities, and thus results in the neglect of those virtues of refinement which our nature needs.

It may be safely affirmed that modern civilization must look to woman to compensate for this neglect by the cultivation of those finer and higher sensibilities which man's work-a-day life tends to dwarf. Here is woman's sphere. Here is woman's genius. Its fullest possible development should be the goal of the ideal woman and would be a much needed deterrent to the wave of present-day folly and vice.

Strife for a "career" and the manifold activities of the "advanced woman" may serve some good purpose, indeed may in some instances be an economic necessity. The innumerable frivolities participated in by the "up-to-date" society woman,

who like the river sponge is forever saturated with the passing streams of fad and fashion, render her life as busily useless as the babbling stream that hurries by a ruined mill.

In either case the tendency of this feminine unrest is to crush out the sentiment of domesticity, that quality of home-making which should be innate in every woman, and to wean her away from that maternal instinct which in its fullest development does most to relieve the battle of life of its hardness, its hopelessness, and its brutality.

Some one has said "Thank God we are all born of mothers, and never can quite leave our cradles behind us." Never more than today has human nature stood in need of mothering; never more than in these feverish times has poor tired humanity needed the help of sympathy, kindness, tenderness and devotion. Never was there a man so great or so self-reliant that at some time he did not long to turn from the battle of life to the mother heart. Yet at times it would seem that the mother idea had gone out of fashion. "Woman's interest has broadened," we are told, she has "broken her fetters," "burst from her bondage," "achieved her independence." In the exchange of the pure sanctity of home for the sordid satisfactions of publicity how little she has gained, and how great the loss to civilization!

The hope of the nation lies in a renaissance of home life and the awakening of woman to the grandeur of her mission to "mother" the weary world.

Such a reform would constitute a sociologic influence tending to decrease crime and "purify the ballot" far more surely than will legislative enactments or woman's suffrage.

The sociologic phases which have here been considered as contributory causes of criminality are not presented with the foolish hope of working out any great moral reform, but from a sense of duty born of knowledge obtained from actual contact with all classes of society as well as from the wide and varied experience afforded by a busy practice.

The propriety of presenting such a paper before a medical rather than a lay audience rests upon the conviction that physicians have better opportunity than the generality of men to impress upon the public conscience the dangers arising from errors of living and of thinking. It is necessary to know in order to judge, and to have the courage of one's convictions in order to advise impressively.

The practice of medicine no longer consists alone in dealing out pills and powders. The physician must concern himself with the education of the people as the first step in the prevention of those evils which lead to moral and physical sickness.

In conclusion permit me to quote from a personal letter written by the late Prof. Borden P. Bowne, one of the ablest philosophers of his time. Referring to certain sociologic problems he wrote:—

"We seem to be in a curious mental condition just now, a kind of deliquescence of intelligence where all hard and fast notions seem to be melting, and where anything seems possible and everything seems credible. Perhaps we may in the past have been a little too dogmatic in spots, but this outbreak of superstition and frivolity sufficiently admonishes us of the danger of any relaxation of good sense and the rules of evidence. I look on with perfect amazement at the vagaries of people supposed to be intelligent; but I trust that there will be a saving remnant that will prove a preservative salt."

It would seem to be the duty and privilege of the medical profession to be an active part of that saving remnant.

THE RELIEF OF PAIN IN NORMAL LABOR AND A BRIEF CONSIDERATION OF "TWILIGHT SLEEP."*

By George R. Southwick, M.D., F.R.C.S.,
Prof. Gynæcology, Boston University School of Medicine.

Labor without conscious suffering, or even the memory of it, is possible for the majority of pregnant women. This fact is not new, but its relation to the mortality, morbidity and general welfare of the family awaits determination by further experience.

Modern surgical practice obtains the best results by using the least possible amount of anæsthetic and a brief period of anæsthesia.

Facts well established by surgical procedure should apply equally well, or more strongly, to obstetrical practice where the unborn child must be considered as well as the mother.

Any method of delivery that materially increases the carbon dioxid in the mother's blood for any considerable period, or exhausts uterine contractions by extra work due to suspension of voluntary effort through maternal unconsciousness, must be viewed with some reservation until ample experience demonstrates its safety.

It is reasonable to expect that while relief from pain is desirable, the extinguishment of all conscious suffering in labor occupies debatable ground.

The infant is expelled by the uterine contractions aided by the voluntary contractions of the diaphragm and abdominal muscles. Voluntary contractions cease with loss of consciousness, except as they may be stimulated by reflex action, or by suggestion if the patient is semi-conscious, or in a hypnotic condition, to which reference will be made presently.

If voluntary contractions are lost, involuntary contractions of the uterus must do the extra work with increased fatigue of the uterine muscle, and prolonged labor results. Efforts to relieve the pain of labor should aim to preserve a certain amount of consciousness and voluntary effort.

Pain is largely due to the stretching of the various parts of the birth canal and especially to the dilatation of the pelvic outlet.

Pain is transmitted chiefly through the pudic nerve and sacral plexus. If the branches of these nerves supplying the cervix uteri and pelvic floor can be blocked, the transmission of pain will be interrupted and the patient materially relieved.

---

* Read at the September, 1914, meeting of the Western District of Massachusetts Homœopathic Medical Society.

Local anæsthesia supplies one means of diminishing the pain of normal labor. It interferes less with voluntary expulsive forces than a general anæsthetic, though absorption of the local anæsthetic takes place and a certain amount of systemic effect follows.

The writer desires to acknowledge the courtesy of Dr. Ham of the Maternity Staff of the Massachusetts Homœopathic Hospital, who has kindly placed at his disposal some cases for the trial of methods for the relief of pain in labor. Sufficient material has not yet accumulated to make a report for publication.

Novocain in a 1:400 solution with adralin, and also, in separate cases, quinin and urea hydrochlorid, have been used for local anæsthesia in labor by deep injection at the sides of the cervix uteri and in the perineum on either side near the pudic nerves. The object has been to block the nerves and prevent in a measure at least, the transmission of pain, with the preservation of consciousness, voluntary and involuntary muscular action.

The novocain solution has been quickly absorbed, and slight systemic effect such as a transitory headache and some diminution of uterine action has been observed. There has been some relief from pain, especially in the second stage of labor, but more work is necessary before any report of value can be made.

Quinin and urea hydrochlorid has not interfered with uterine contractions, nor have any toxic effects on mother or child been observed up to the present time. The anæsthetic effect on the pelvic floor and perineum has been more evident. The administration of very little ether in the last few minutes of the second stage of labor has made the patient comparatively comfortable. Further work is necessary before any definite opinion can be expressed.

Chloral hydrate, 20 grains, in a boiled starch four-ounce enema is an old remedy for pain in the first stage of labor. It owes its efficiency to the liberation gradually of a slight amount of chloroform. It is also valuable to allay the irritability and apprehension from which many women suffer. It is especially useful for a parturient woman exhausted in the first stage of labor. She often will sleep a few hours after it and awake refreshed and able to complete her labor with returning pains.

Gelsemium has seemed to assist dilatation of the cervix uteri in some cases. Five three-drop doses of the tincture, given every half hour, apparently relieves spasm of the cervix uteri and facilitates relaxation and dilatation of the cervix. Lobelia and belladonna have the reputation of a similar action, but neither of them has been tried in these cases.

The patient should not be left alone for a length of time after

using gelsemium, as the baby is born sometimes more quickly than is expected.

General anæsthesia with chloroform or ether is too familiar a practice to require discussion here.

The inhalation of oxygen to maintain good aëration of the blood in protracted labor for the benefit of the unborn child, deserves more attention in obstetric practice. It is desirable in all cases if the maternal circulation shows an excess of carbon dioxid. It is also a valuable addition to the use of ether in labor.

Nitrous oxid and oxygen, especially if given in the apparatus devised for anæsthesia while filling sensitive teeth, is an excellent remedy in the second stage of labor. The patient can be kept semi-conscious by this apparatus, able to answer questions and experience little if any pain. It requires constant watching by an experienced anæsthetist with nitrous oxid, as the borderland is very narrow between the semi-conscious stage with little or no pain, and that of total loss of consciousness.

Morphin has remarkable power to relieve pain in large doses, but its toxic effect on infants, the slowing of respiration and the production of coma, prohibit the use of it in labor.

A new derivative of opium has been placed on the market, known as narcophin. It acts more slowly than morphin, but the effect is of longer duration. Relief begins in about fifteen minutes and the maximum effect is reached in about three hours, after which it slowly declines. It interferes much less with consciousness than morphin. It has much greater analgesic effect. It has about one-third the strength of morphin for the same size dose and has been used as a sedative to follow the withdrawal of morphin.

The pain of labor is diminished nearly, or quite fifty per cent. by narcophin. The patient is semi-conscious, wakes with pain, bears down, makes voluntary efforts, talks and obeys directions.

Hyoscin hydrobromid, also known as scopolamin, has been used in combination in tablet form with morphin and was supposed to modify the toxic action of morphin. It has been used quite extensively for labor pain, and generally abandoned.

Hyoscin hydrobromid is an active poison, somewhat unstable and variable in action as commonly prepared. It dilates the pupils and easily causes delirium or headache, as might be expected in a drug derived from hyoscamus. A few people, such as the insane, (according to Merck) can take a thirtieth of a grain for a sedative effect. Some sane individuals are susceptible to one four-hundredth of a grain. Death in two cases has been due, apparently, to one one-hundredth of a grain. This extreme variation in dosage and individual susceptibility is a good reason for

using scopolamin with caution. It suggests lack of uniform strength in preparation quite as much as personal idiosyncrasy. A German firm claims a new process of making pure hyoscin hydrobromid, scopolamin, and to obtain uniform strength and a stable preparation, admitting of reliable dosage. The personal susceptibility, *i. e.*, the idiosyncrasy, is met by giving the remedy in very small doses and observing the effect. It dulls or abolishes memory, which can be tested by asking the patient from time to time if she recognizes a well-known and familiar object and when it was seen last, if at all, as well as other memory and motor tests. Scopolamin is a sedative and has the curious property of increasing susceptibility to hypnotic suggestion.

The patient under the influence of scopolamin, especially if narcophin or morphin has been given in addition, can be controlled to a remarkable degree by the quiet suggestion of an experienced anæsthetist. A patient in this condition is easily roused by shaking, noise or bright light, or even conversation.

The separate hypodermic administration of Merck's narcophin and the scopolamin made by the Hoffman-La Roche Co., produces deep analgesia with semi-consciousness, more or less amnesia, and susceptibility to hypnotic suggestions, and preserves voluntary effort. These effects vary according to the method of administration and the amount given of each drug. It appears to be safe to carry the effect to the extent of producing light coma, some slowing of respiration, complete amnesia, non-recognition of the family and slight dilatation of the pupils. The effect resembles a patient lightly etherized, with this difference, that consciousness is preserved to a large extent. A very little ether obliterates consciousness.

Narcophin and the scopolamin made by Hoffman-La Roche Co., are the drugs used for the relief of labor pain in what is known as "Twilight Sleep." Some use narcophin alone to dull the pain of the second stage of labor, not caring to disturb the function of memory. Others use very small doses, one or two, to cloud the memory slightly without abolishing it. Other combinations, such as the use of chloral hydrate and gelsemium in the first stage of labor, and narcophin in the second stage, or the use of a local anæsthetic in the perineum, remain to have their value determined.

The use of narcophin alone is an advantage to the general practitioner, who attends the patient in her home. Careful observation of the patient is necessary, but the constant personal attention absolutely essential for the maintenance of slight amnesia by scopolamin is not required. Labor can be managed with some attention to near-by patients.

Narcophin prolongs labor in some cases to the extent of an hour or two. Pituitrin is an excellent remedy in the second stage if uterine contractions weaken, and a little ether given as the head passes over the perineum is often advisable. This management of the pain of labor appears to be safe for general use and the patient is spared more than half the amount of usual suffering.

The additional use of scopolamin increases the effect of narcophin. The patient will have regular uterine contractions, strain, bear down and obey commands or suggestions. If the power of memory is tested from time to time amnesia can be regulated by repeating very small doses of scopolamin as necessary. This requires some experience and close attention to the patient which prohibits all other work. "Twilight Sleep" requires relay, or team work for two physicians, one to relieve the other in attendance, and a special or well trained nurse.

Particular emphasis must be laid on the fact that the patient is easily roused by handling, light or noise, and the value to her of the treatment is likely to be lost if absolute rest and quiet in a darkened room are not carefully observed.

This is especially necessary at the close of labor when unnecessary handling of the patient, talking to her or being present in the room will make her fully conscious, when otherwise she goes to sleep and wakes a few hours later without remembering the pain of labor and wondering when baby will be born. Ether is necessary if forceps are applied.

Hospital care offers the best facilities for this treatment, which is quite true of the ordinary management of confinement cases, where sentiment too often overrules judgment. It is hardly necessary to add that neither narcophin nor scopolamin should be used without considerable previous experience with obstetrical work. The method appears to be safe for mother and child if used in moderation, without pushing the drugs for extreme effects which are not necessary and which further experience may show are not desirable. There are likely to be some failures and some unfortunate results from incompetence, lack of judgment and perhaps idiosyncrasy of occasional patients. There will be criticism from high authority and from those who have not actually had experience with it, but the method in some form is certain to be widely and carefully tried and probably will stay. Experience will determine its value in spite of prejudice excited by jealousy, newspaper advertising, or the memory of unfortunate experience with the ordinary preparations of hyoscin and morphin, which should not be confounded with the drugs now used.

The usual management of a case of labor by the "Twilight

Sleep" method is to prepare the patient as for ordinary labor in a darkened room. The patient, with the knowledge of what is expected, is psychologically prepared and ready for suggestive treatment. When the first stage of labor is well under way a single dose of narcophin is given. Slight effects begin in from fifteen minutes to half an hour and the maximum is reached in about three hours.

An hour after the narcophin is given, a small dose of scopolamin (1-150 gr.) is injected deep in the lumbar or gluteal muscles, and in half an hour memory tests begin by asking the patient to look at some familiar object and when she has last seen it, if at all, if she has been examined; thumb and fingers together, dilatations of pupils, etc. These tests are repeated at hourly intervals and just enough scopolamin,—one four-hundredth of a grain or less,—is given to keep the patient slightly amnesic.

The patient is quiescent between pains, cries out with them, makes voluntary efforts and shows the usual signs of labor under light anæsthesia. There may be slowing of respiration and slight appearance of coma. Labor is prolonged one or two hours. The loss of voluntary effort is compensated for, if necessary, by injecting pituitrin or the early application of the forceps. It is claimed that women delivered by this method are less exhausted, are in better physical condition than after ordinary labor; that they can eat hearty food within twenty-four hours and readily walk about on the fifth day. This may be true, but the same has been practised by the Christian Scientists and most physicians can remember similar cases in ordinary practice.

The usual preparations of hyoscin and morphin have been abandoned as both uncertain and sometimes dangerous and should not be used.

If the manufacturing chemist has really succeeded in increasing the analgesic properties of morphin and at the same time extracted that quality of it poisonous to infants, then narcophin will be a valuable remedy. If in addition the chemist has prepared a stable preparation of hyoscin hydrobromid of uniform strength with a reduction of its delirifacient qualities it will be a valuable aid to the anæsthetist.

The success of "Twilight Sleep" depends on these facts. Many hundred women safely delivered without even the memory of labor and with healthy children testify to it.

It is not likely to be used in the home or in private practice, as constant attendance at the bedside is necessary throughout labor; nor can success be expected in a noisy hospital with inexperienced interns attending most of the cases.

This paper should not be closed without drawing attention to the importance of diet and hygiene of pregnancy, and especially to the value of inducing labor prematurely for overgrown infants in utero. Large babies inflict greater traumatism on the mother, greatly increase the pain of labor and are born with greater danger to the child itself. The induction of premature labor when the child in utero weighs seven and a half or eight pounds is a safe procedure for both mother and child.

Experience in palpation gives reasonably accurate knowledge of the size and weight of the child as well as the dimension of the pelvis below the brim.

"Twilight Sleep" will serve a beneficent purpose if it does no more than arouse interest in means of relieving the pain of labor. There has been too much indifference to pain, too much hesitation in interfering with a natural process with which extreme suffering has developed with civilization. Simpson well said half a century ago, "Labor pain is dangerous, It is destructive." We pay the penalty in shattered nerves and broken womanhood.

IMMUNITY AND THE HOMŒOPATHIC LAW.*

By W. H. Watters, M.D., Boston.

Four years ago it was my privilege to present to this Society a paper upon "A Pathologist's View of Homœopathy." In this an attempt was made to explain how one not particularly interested in drug therapy might consider the theoretical grounds of homœopathy in the light of modern medical research.

Since that period many more advances have been made in scientific medicine. It accordingly seems appropriate to review the field anew and ascertain if possible whether any of these later discoveries bear in any way upon your specialty of homœopathy in a confirmatory or in a contradictory manner.

As before stated, homœopathy as a specialty is or has been characterized by five features:

1. The single remedy.
2. The proving of drugs.
3. The size of the dose.
4. The frequency of the repetition of the dose.
5. The law of cure.

Let us briefly examine each of these separately.

---

* Read before the American Institute of Homœopathy, July, 1914.

1. The Single Remedy.—In drug therapy there is an undoubted continual trend away from polypharmacy of the olden days to more and more simple preparations. The belief is increasing that just as more combinations are introduced into a prescription just so in proportion does our knowledge of the action of the resultant mixture decrease. It is comparatively easy to ascertain the action of one drug or possibly of certain definite and simple combinations, but when the number is multiplied and the combinations indefinitely varied, no human being can say exactly what the action will be. Will it be a mechanical mixture where each drug maintains its own properties, and if so will these properties all properly interact; or will it be a chemical combination where all ingredients lose their own properties and a new substance is formed with new properties? Who can tell? The most modern form of polypharmacy introduced since the earlier paper was read is found in the "phylacogens" and "mixed vaccines." There is no reasonable doubt that in some instances their use has been followed by benefit. It is true, however, that the same or more benefit could have been secured by the properly selected single vaccine without recourse to the old "shot-gun" methods. Not only do homœopathists decry such agencies, but the strongest opposition comes from the *Journal of the American Medical Association,* where their use is proclaimed, and correctly, to be unscientific and based upon no tenable foundation.

If homœopathy has done nothing further than to bring about this change, which it is practically universally admitted to have done, its existence has been justified.

2. The Proving of Drugs.—Possibly if we spoke of the "testing" of drugs rather than the "proving" it might be more consistent with exact nomenclature and would certainly be more acceptable to outside physicians as well as more in accordance with modern verbiage. At the present time physicians of all schools unite in admitting the need of testing the action of drugs upon the living both in human and the lower animals. The extent to which the symptomatology is watched differentiates the various groups. Some watch and record organic lesions only; others include objective phenomena; others subjective ones and still others note the most minute physical or mental change even to the condition of the wind, the weather or the stage of the moon. These are all quantitative differences, however. All unite in the basal idea, the need of drug study upon the healthy.

3. The Size of the Dose.—In this the homœopath is no longer at variance with the remainder of the medical world. No longer is the finger of scorn pointed at the "infinitesimal dose" of the average homœopathist, for behold those who but recently sat

in the seats of the scornful are using that same much abused dosage and are even "out-Heroding Herod." Witness a recent article by Dr. S. Solis-Cohen, an eminent Philadelphia consultant, upon "When and How to Use Tuberculin Preparations in Private Practice."

The following was the author's modification of Latham's method: tuberculin residue (T. R.) with milk sugar, was given orally with skim milk, whey or beef juice. The initial dose, he said, was one one-millionth of a milligram (9 x). Both subjective and objective symptoms of reaction were watched for. The dose was repeated once or twice weekly, according to result. It was gradually increased by increments of one one-millionth of a milligram to the reaction point, and then dropped one point lower, and so continued for some weeks. Later, a further increase was attempted, and if reaction was not shown, was repeated in a similar gradual way. The arbitrary increment of one one-millionth of a milligram was maintained during this remittent progression until one ten-thousandth of a milligram had been reached (5 x). After that, the increment might be raised to one one-hundred-thousandth of a milligram. Thus by successive stages a maximum dose was attained at a point determined for each individual by all the factors in the case, including the rapidity of the increase, character and intensity of reaction and maintenance of tolerance, as well as the local and general signs of improvement.

The treatment was continued with intermissions, for many months, and may be resumed, if necessary, from time to time over a period of years."

As a slight digression, bear in mind the minute doses thus employed. Note his opinion concerning the selection of cases.

"Selection of cases. In the majority of advanced cases, according to present knowledge, tuberculin was likely to be harmful. Experienced observers might employ it cautiously under conditions that seemed to call for its use, but others should avoid it, especially in cases showing a tendency to continuous fever, or in which there was or had been recently, active softening. In the great bulk of early cases it was needless. Under proper treatment, medicinal as well as hygienic, recovery would take place without it.

Its field of action was in the treatment of cases which (1) had not passed beyond the stage of infiltration and which (2) had shown a certain degree of improvement under proper food, fresh air, judicious rest and exercise, and other approved measures, including the right drugs, but in which (3) improvement became sluggish or ceased, or retrogression took place. The slight additional stimulus afforded by an appropriate tuberculin preparation

administered at well chosen times, and in correct dosage, would often reawaken the defensive and restorative processes of the organism and be followed by complete recovery."

It is true that even these doses may appear massive to our friends who adhere to the higher potencies. Let not the low potentists deride such prematurely, but taking a lesson from the experiences of the dominant school bear in mind that the fact because a thing is contrary to general belief or present understanding does not of necessity mean that it is fallacious.

4. The Frequency of Repetition of the Dose.—The homœopathic principle is to repeat the dose when we think the action of the preceding one has begun to weaken or when we wish to obtain a cumulative action by frequently repeated minute doses. This ground is amply defended by and daily put into practice in the routine application of vaccine therapy. The attitude of the dominant school in this regard in treating chronic cases is well expressed in the article already referred to by Solis-Cohen, who repeats the oral administration of the drug once or twice a week, and by Latham, who allows intervals of one, two, three or even four weeks to intervene between.

5. The Law of Cure.—This is the vital point. Is the phrase *similia similibus curantur* in accord with modern ideas? Undoubtedly the study of the action of vaccines has given us a better understanding of homœopathic principles than has any other one work. Bacterial vaccines, toxic matter of dead bacteria, vegetable toxins, drugs really, have been subjected to laboratory and clinical study during recent years to a most extensive degree. At present their action is quite accurately known. The typhoid toxin, for instance, when present in the body in abundance is capable of producing a proliferation of endothelial cells in certain locations, which proliferation gives rise to a characteristic series of symptoms to which the name typhoid fever is given. A similar typhoid toxin in much smaller amount gives rise to opposing phenomena that prevent the activity of later infection from becoming effectual and so prevents the disease. This we call typhoid immunization. Again, after the large amount of toxin has given rise to characteristic symptoms, a small amount then administered is often followed by a remarkable subsidence of such. The first toxin causing the disease had its origin in living bacteria. The second used in treatment was modified in the test tube and by heat, a *similia* rather than an *idem*. Similar facts might be adduced in other diseases, but time forbids. Another important action here briefly to consider is the action of X-rays.

Let any one first make a list of the disturbances that overexposure to these may cause, such as eczema in its various forms,

and all the varieties of skin lesions, even including cancer itself and other manifestations. Then let him compare his list with that which the X-ray in short exposures is able to cure, not even excluding cancer. The similarity of the two columns will be striking to even the most hurried glance, and well illustrates our contention that a substance in large amount is able to cause the same or a similar condition to that for which it is curative when used in a less concentrated form. Similarly certain exposures to sunlight act as aids to cure, particularly in tuberculosis. But over-exposure will produce aggravation. Such could also be said of foods, some stimulants and a number of other articles, or, to express it concretely, small amounts are beneficial, larger ones deleterious.

Of particular interest are the reports of one of the British Cancer Research Societies in regard to its work with radium. The report states that radium and other radio-active substances when properly exposed to plants, spores, etc., possess the power of stimulating all growth and activity if the exposure is brief, But when the period is lengthened shows exactly reverse powers, inhibiting growth and even producing death itself.

Several years ago, Wheeler in London, Burrett in Ann Arbor and the speaker in Boston, performed a series of experiments tending to demonstrate that certain drugs possess the power of increasing the degree of immunity against certain specific bacteria in a manner identical to that exerted by vaccines.

Later, Mellon, of Ann Arbor, claimed to have produced other evidence of body reaction to drugs similar to that produced by toxins. This had reference to the appearance of a positive Widal reaction following the administration of Baptisia. This has recently been confirmed by Wheeler of London. Even more recently, Hooker, in Boston, has made extensive studies concerning the effect of drugs in producing immunity. The results of this work are to be presented to the Institute at this meeting and will, we believe, still further strengthen our position.

During the past year much work has been done by Conrad Wesselhoeft, 2nd, in Boston, in a study of the effect of quinin upon the malarial organism. While not as yet fully completed, his results tend to show that quinin acts not as a direct parasiticide (as we have heretofore thought to be the case), but by stimulating the natural resisting forces of the body to greater activity in a manner closely allied to immunization.

During the past five years, then, nothing has been brought forward to confute the idea that the basic idea of homœopathy is immunity, while much new evidence has been introduced to prove it. The same answer can still be given to the question, "What is Homœopathy?"

Homœopathy is the term given to a distinct method of using medicinal agents, a method that is based upon sound theories, and one that is yearly becoming more demonstrable by exact science. It is perfectly consistent with known facts, and is probably merely a way of expressing the means employed in reaching the goal of all medicine, the production of immunity. Or, in other words, the production of immunity is the name given to the end attained, homœopathy to the means of attaining it. This means, therefore, that the goal of all physicians is the same and the roads to it are very similar. In one, drugs are recognized as important (possibly by some, too important), in the other hygienic measures exclusively, drugs being practically discarded. Where lies the truth? As usual, somewhere between the two. In the past it is possible that some of our associates, in their ardent and continuous study of the drug immunization, have lost sight of what we might call hygienic immunization. If such has been the case it has been most unfortunate and unwise. It has been, I believe, very limited, however. In the future, bearing in mind the frequent opportunities for error in details in all human affairs, let us press onward with the sincere belief that from year to year as our knowledge increases, a clearer understanding of the phenomena of cure will positively be ours and with it a more comprehensive interpretation of our motto, *similia similibus curantur.*

DEAF-MUTISM.*

By Harold L. Babcock, M.D.,
Asst. Aural Surgeon, Massachusetts Homœopathic Hospital, Boston.

Deaf-mutism is a condition observed in individuals who, because of an early deafness and inability to hear spoken language, are unable to learn to speak by means of hearing, or having a slight vocabulary before becoming deaf, gradually lose it.

Deaf-mutism is usually classed as congenital or acquired. Acquired deaf-mutism is more frequent than the congenital variety. Barnhill and Wales state that of 2227 deaf-mutes who were admitted to the Indiana Institution for the Education of the Deaf between 1844 and 1900, less than 34 per cent were congenitally deaf. In the acquired condition the child may have lost his hearing before the age when speech is normally developed, or some degree of speech may have been acquired before deafness ensued, in which case a certain amount may have been retained for an indefinite period. The child in this latter condition, however, being unable to longer hear the sound of words, forgets both their combination of tone and accent, with the result that words are pronounced harshly, indistinctly and almost unintelligibly to those with whom the child is not in close contact.

An arrangement for classification of deaf-mutes adopted by the Royal Commission on the Deaf (England) places them in three classes:

1. Those who are congenitally deaf, and are consequently dumb.

2. Those who become deaf after birth—

(a) Those who become deaf before acquiring speech.

(b) Those who become deaf after acquiring speech, and who continue to speak in virtue of the unforgotten speech of earlier years—the semi-mute.

3. Those who possess sufficient hearing power to hear and to some extent distinguish the sounds of the human voice—vowels, consonants, or even some words—the semi-deaf.

Hammerschlag has pointed out that the usual division of deaf-mutism into congenital and acquired forms does not hold good in reference to intra-uterine acquired deaf-mutism, and he suggests that this deaf-mutism condition be divided into (1) that caused by local affections of the organ of hearing, and (2) the constitutional deaf-mutism. The first form (caused by local affections of organ of hearing) would be always acquired, although it could develop during fœtal life. The constitutional form he divides into the

*Read before the Alethean Club, May 15, 1914.

endemic and sporadic, the former including cases found quite commonly in certain parts of Switzerland associated with cretinism, and the latter including cases resulting from consanguineous marriages.

Statistics show that the proportion of male and female deaf-mutes in different European countries is always in favor of males but varies between the ratio of 100:90 and 100:65. In the United States in 1890 there were 41,283 deaf-mutes, with the proportion of male to female of 100:81.

The following statistics of Holger Mygind are of interest in showing the frequency of this condition in Europe:

	Aggregate Population	Number of Deaf-mutes	Number of Deaf-mutes per 100,000 inhabitants
Switzerland, 1870	2,669,147	6,544	245*
Austria, 1880	22,144,244	28,958	131
Hungary, 1881	15,642,102	19,874	127
Baden, 1871	1,461,562	1,784	122
Alsace-Lorraine, 1871	1,549,587	1,724	111
Wurtemberg, 1861	1,720,708	1,910	111
Sweden, 1880	4,565,668	4,834	106
Prussia, 1880	27,279,111	27,794	102
Finland, 1880	2,060,782	2,098	102
Norway, 1886	1,922,105	1,826	95
Bavaria, 1871	4,863,450	4,381	90
Ireland, 1880	5,174,836	3,993	77
Portugal, 1878	4,161,980	3,109	75
Greece, 1879	1,679,551	1,085	65
Denmark, 1890	2,172,380	1,411	65
Saxony, 1880	2,972,805	1,747	59
France, 1876	36,905,788	21,395	58
Scotland, 1881	3,933,300	2,142	57
Italy, 1881	28,461,681	15,300	54
England and Wales, 1881	25,974,439	13,295	51
Spain, 1877	16,623,384	7,629	46
Belgium, 1875	5,336,185	2,280	43
Holland, 1879	3,575,080	1,199	34

The pathological conditions found in cases of deaf-mutism are very varied and include abnormalities in the ear, all mechanical obstructions to hearing as well as nerve lesions in various sections of the auditory nerve and auditory brain centers in the temporal lobe.

Politzer gives the following lesions known to have produced congenital deaf-mutism: bilateral atresia of the external auditory canals, impaired development or absence of the middle ear, defects and rachitic deformities in the labyrinthine windows, bilateral osseous closure of the round windows in addition to simultaneous ankylosis of the stapes and a diminution in the size of the labyrinthine cavity, anomalies of formation in the middle ear, with co-

* Associated with cretinism.

existing changes in the ductus cochlearis, narrowing of the recess of the round window to a cleft with connective-tissue atresia of the same, atrophy of the cochlear nerve and spiral ganglion in the first turn of the cochlea, abnormalities of the membrane of the otoliths and organ of Corti and of the ductus cochlearis, epithelial metaplasia with faulty development of the sensory epithelium combined with collapse of the membranous labyrinthine wall, defects of the crista and sulcus spiralis and of the epithelial cells of the ductus cochlearis, with an abundant formation of hyaline bodies and pigmented patches in the latter, lack of development of the labyrinth and of the auditory nerve, inflammatory processes in the middle ear and labyrinth arising in utero, a break in the continuity of the acoustic roots through hemorrhages, malformation of the central nervous system, meningitis during fœtal life, and hydrocephalus.

Anatomical changes which have produced *acquired* deaf-mutism are given by the same author as follows: bilateral acquired atresia of the meatuses, scarlatinal, diphtheritic and other purulent middle ear suppurations which are associated with exfoliation of the ossicles and which usually arise during the first years of life, caries and necrosis of the labyrinth, inflammatory changes in the labyrinth, firm adhesions and ankylosis of the ossicular chain, chronic non-suppurative catarrhs with termination in obliteration of the tympanic cavity by the new formation of connective tissue, and occlusion of the labyrinthine windows, owing to the formation of new bony masses.

Inflammatory and retrogressive changes of varied character are found in the labyrinth itself and of changes in the brain tissue the following have been observed: imperfect development of the inferior left frontal convolution and of the island of Reil. Atrophy of the superior convolution of the temporal lobe has been found in only one case (Obersteiner).

At the autopsy of Laura D. Bridgman, a famous blind deaf-mute in Massachusetts, the auditory areas of the brain were found to have a very thin cortex and to contain a remarkably small number of cells. This woman died at the age of 65 years, having been entirely deaf for 60 years.

Politzer states that the anatomical conditions do not always show whether the deafness is congenital or acquired and it is only in cases of marked impairment of development in the ear where it can be determined with certainty that the deafness is of a congenital nature. Sequelæ likely to occur with this condition are deficient development of the mental faculties, of the larynx, of the lungs. Pathological conditions observed with it are a high mor-

tality rate, sterility and often an extraordinary development of other senses, especially the eyes.

Heredity and intermarriage between blood relations are believed to be the most frequent indirect causes of congenital deafness. Regarding heredity in deaf-mutism Mygind says: "Opinions have differed greatly during the present century, and even now there is no agreement upon the subject. The reason is not only that the laws which govern the hereditability of pathological changes and disease are difficult of interpretation, but that the term heredity is differently employed. The material which forms the basis of the various investigations has, too, been very different. Some investigators have considered heredity as only expressing the appearance of a pathological condition in two consecutive generations, others have used the term as expressing the same also when it appears in the collateral branches of a family, while others have considered the appearance also of kindred pathological conditions, cretinism, albinism, malformations, insanity and idiocy, in the same family as proofs of heredity."

After citing various cases and statistics he draws the following conclusions: (1) deaf-mutism is comparatively frequent among relatives of deaf-mutes; (2) least frequent in the direct ascending line; (3) more frequent in collateral branches; (4) most frequent among brothers and sisters of deaf-mutes.

Cases have been reported of families containing six congenitally deaf, and five perfectly normal, from healthy parents; four deaf-mutes in a family of ten, of apparently normal parents. The largest number of deaf-mute children observed in one family has been ten.

Inasmuch as insanity, epilepsy, and other related conditions are found among the relatives, Mygind argues that deaf-mutism in many instances is a combined result of the transmission of two groups of influences, those originating from ear diseases and those originating from nervous diseases in the family.

Deaf-mutism resembles hemophilia from a hereditary standpoint, in that it may pass over several generations and accumulate in a single one, being also most frequent in males.

His final conclusion is that deaf-mutism appears with enough frequency in two consecutive generations to be considered an abnormality which is greatly influenced by direct transmission.

Intermarriage between blood relations is believed to be an indirect cause of congenital deafness. Kreidl and Alexander, in examining 558 deaf-mutes, found (1) that deaf-mutism occurred in 3.67 per cent when the parents were blood-relations; (2) that deaf-mutism was present in 2.3 per cent of the cases in which the parents were deaf-mutes, hard of hearing, or had affection of the mind;

(3) that deaf-mutism occurred in 13.3 per cent when the marriages were between blood-relations in whom there was deaf-mutism, hardness of hearing or mental diseases, and (4) that the diagnosis of congenital deafness could be made without doubt if there were several deaf and dumb children in one family. They found congenital deaf-mutism in 70 per cent and acquired in 30 per cent.

In speaking of consanguinity as a cause of deaf-mutism, Mygind says: "There are but few facts which serve to elucidate the question as to whether the influence of consanguinity upon deaf-mutism is direct or indirect. It is undecided whether consanguinity in itself is a remote cause of deaf-mutism or whether it is through the intensified transmission of hereditary morbid conditions or tendencies prevalent in a family, that it makes itself felt. Theoretical considerations are strongly in favor of the latter supposition, but it is but fair to say that up to the present there have not been many or convincing facts brought forward in its support."

As remote causes of deaf-mutism (congenital) he gives diseases in parents (alcoholism, syphilis), age and difference in age of parents, circumstances relating to offspring (*i. e.*, large number of children, infant mortality, time of birth, etc.,) influences during pregnancy and delivery.

Politzer believes that it is very doubtful whether unfavorable social relations are conducive to the frequent occurrence of congenital deafness, but that they play an important part in causing acquired deaf-mutism.

Acquired deaf-mutism may be caused by (1) primary affections of the ear, *i. e.*, injuries and infections, (2) intra-cranial processes, and indirectly by (3) certain general diseases (*i. e.*, La Grippe, typhoid fever, mumps, whooping cough etc.).

Deaf-mutism cannot be diagnosed with certainty until the child begins to react to sound and to attempt to imitate speech. In most children this has occurred by the end of the first year, but in some the reaction does not occur until well along in the second year, although later they become normal. For this reason a positive diagnosis must not be given too early.

A diagnosis is difficult enough at best in young children, as the mis-statements of friends or parents, the use of the child's other senses during examination and the accidental coincidences occurring at such a time must be eliminated.

In testing the hearing of a suspected deaf child, one should stand behind the child, where he cannot be observed, and then either clap the hands, blow a shrill whistle, ring a dinner gong, blow a trumpet or make some other loud noise. If the child hears any sound whatever, he will naturally turn his head in the direction

from which it comes. The child will often show an expression of joy or surprise on hearing the vibrations of a tuning fork placed against his head. If some degree of hearing exists, each ear should be tested separately for various sounds.

Simple or uncomplicated mutism (aphasia) without deafness, is a rare condition due to localized disease in the central nervous system, causing total inability of speech. Aphasia accompanying feeble-mindedness or idiocy is of much more frequent occurrence.

Word deafness, in which the patient, owing to a lack of development of the auditory word centers, lacks any hearing power for speech, while having apparently normal hearing power for sounds generally, is another unusual condition.

Simulation of deaf-mutism is sometimes adopted by people for various purposes, and if cleverly performed is very difficult to detect.

Mygind suggests that in order to clear up the diagnosis in these cases and also cases of hysterical mutism, the patient be chloroformed to ascertain whether the power of hearing and speech exists either during the period of excitation, or while the patient is recovering from the narcosis.

The question as to the variety of deaf-mutism—hereditary, congenital or acquired—is usually the most difficult of all. Pronounced malformations sometimes suggest heredity, and the objective examination of the ears usually throws no reliable light on the question. Often the matter has to be decided on family history or the statements of parents and friends as to the child's early speech, if any, or infantile diseases.

The consensus of opinion among investigators is that the prognosis for hearing, although poor at best, is more favorable in the so-called congenital than in the acquired form. Occasionally a case of the former will improve, but cases of the latter with profound deafness due to the exanthemata or meningitis practically never improve. In those untreated cases in which the deafness is acquired during the first four years of life, inability to speak occurs almost without exception; if lost between the ages of four and seven years, the speech already acquired is gradually lost.

The prognosis for the mutism, on the other hand, is more favorable, although it is associated in intensity with the degree of deafness. There are cases in which the deafness has been cured, or rather has spontaneously improved, and mutism thus avoided.

Many deaf-mutes suffer from vertigo and disturbances of equilibrium and it has been observed that those who show normal equilibrium are much more likely to have normal speech.

Local treatment has generally proven unsatisfactory unless pronounced objective and curable conditions in the middle ear exist. Various hearing exercises with speaking tubes, tuning forks and musical instruments have been devised and used with occasional success.

Hudson-Makuen, in speaking of the medico-educational problem of the deaf child, says: "The problem would be in all respects identical with that of the normal child if the deaf child were not dumb. To teach the deaf child to speak, therefore, and read speech, notwithstanding his deafness, is the function of the teacher, and the function of the physician obviously is to aid the teacher by diminishing as much as possible the degree of deafness and by opening up the avenues to the central mechanisms of speech through the senses of vision and touch. If the deaf child can be taught to speak and to understand speech, his deafness becomes a comparatively negligible factor in his life."

Deaf and dumb children have been taught and cared for in institutions since the 16th century, when a Spanish priest named Pedro de Ponce is said to have founded the first one.

Three methods of instruction have been employed in these schools, (1) the Oral, or so-called German system, (2) the Sign and Manual, or French system, and (3) a combination system of the first two.

The sign and manual system is not popular because of its lack of universal applicability and tendency to limit the number and kind of people with whom the deaf-mutes can associate.

Alexander Graham Bell in 1883 presented to the National Academy of Sciences a Memoir on the "Formation of a deaf variety of the human race," in which by voluminous statistics, he aimed to show a tendency toward the development in the United States of such a race and suggested that the following evils in connection with the instruction of deaf-mutes be corrected: (1) segregation, (2) use of the sign language, and (3) employment of deaf teachers.

The oral system is the one used in most schools at present, although more difficult of application. This system was introduced in England about 1653, and in 1662 a Dr. Wallis gave the first exhibition before the Royal Society of a deaf-mute who had been trained for one year by this system. By this method a child can be brought into intimate relationship with the outside world, which result is of most importance. The oral method is used here in Boston at the Horace Mann School. Its plan of instruction is to teach every child to speak and to read speech of others by sight from watching the lips, and to understand written and printed languages. Department teaching is followed so that pupils can have the prac-

tice of reading the speech of several teachers. Speech is employed in all grades and recitations conducted as in schools for hearing children.

In 1889 the Legislature of Massachusetts voted to pay for the expenses of instruction, support and travel of any deaf child over five years old in the state, the application being made through the governor. In Denmark all children are considered as deaf-mutes who cannot be instructed in the same way as normal children on account of deafness.

Children too deaf to be properly taught in the public schools should be sent at the age of 6 or 7 years to institutions where special training is given unless intelligent training can be had from the parents at home.

The records of aural examinations of children in deaf and dumb institutions which have come to the notice of the writer are woefully inadequate and incomplete. This matter of aural examinations can and should be corrected in order to bring to light any possible aural disease which might be cured, thus increasing the hearing and possibly saving the child from this very unfortunate condition and from a life of impaired usefulness.

POST OPERATIVE TREATMENT OF PUS CASES.*

By Claude A. Burrett, Ph.B., M.D., Ann Arbor, Mich.

In a consideration of this subject it is our purpose rather to bring together some known principles of treatment and apply them to the particular class of cases under consideration, than to make any pretense at presenting anything new on the subject.

We have been surprised at the inability to find the subject of the treatment of pus cases dealt with in a systematic way either in text-books or the current literature other than in a very cursory manner. It has seemed from the literature that drainage and antiseptics were all that is essential. We wish heartily to concur with the value of drainage and as heartily to condemn the indiscriminate use of antiseptics.

It is impossible to deal with this subject without first reviewing some of the underlying principles which bring about such a condition. There are two basic ideas which we wish to call to your mind. The first is that for every attack which is made upon body cells there is a reaction, small or great, on the part of those body cells which are injured. The second is that the most important agents in this defense on the part of the body are

* Read before the American Institute of Homœopathy at Atlantic City, 1914.

the blood and lymph. Sometimes this defense in its effort at protection of the whole body throws out an exudate which saves the life of the whole body, at the same time walls off further defense of the body fluids and causes a chronic sinus. We shall refer more at length to this point later.

It is only necessary to mention that injury to the body through infection is caused by the products of the infecting bacteria which we call toxins. These toxins are carried by the lymph to the blood stream and on to the different parts of the body, and as a result a greater or less symptomatology is produced. The defense is in the form of antitoxins or antibodies which are elaborated and carried in the blood serum. These substances seem to neutralize the toxins and alleviate the symptoms. At the same time this protection which the serum gives to the body is aided by the fact that through it the leucocytes destroy the bacteria. The completeness of this destruction depends upon the extent of protective power in the blood serum.

It is an interesting fact that the natural protective power of the serous fluids of the different parts of the body varies to a marked extent. For example, the fluids of the peritoneal cavity are more protective than the fluid of the spinal canal. In this connection mention should be made of the therapeutic value of drainage of the peritoneal cavity in the instance of tuberculous peritonitis. The accumulative fluid has lost its protective power, and drainage with the following collection of fluid of a high protective quality brings to the abdominal cavity renewed antibodies for protective power. Many theories with reference to this point have been advanced. One surgeon in years past was accustomed to open the abdomen in such cases and arrange for light to be introduced continually into the abdomen by means of a window, the thought being that the light was the antiseptic agent. He was right with reference to the antiseptic property of light but wrong as to the application of it in this case. It follows, then, that the circulating blood has more of the protective element than has the ascitic fluid. When that fluid is removed by aspiration or better by laparotomy the highly protective serum from the general circulation is allowed to reach the peritoneal surface and cavity with the result of an increased fight against the infection.

Let us see what takes place in case of a fistula. The fistula wall consists of an exudate thrown out from the surrounding tissues in an effort on the part of the body to protect itself from the infection. The circulation of lymph is partly or wholly blocked; as a result the toxic products of bacterial growth are not carried to the general circulation and accordingly the patient

suffers no general toxemia. On the other hand no resistance is called forth from the body and the immunizing properties which the circulation possesses cannot reach the infected area. Wright made this observation some years ago in this class of cases because of his failure to influence the opsonic index by vaccines. We wish at this time to remind you that since so-called vaccines and the attenuated drug act in the same manner by calling forth increased bodily resistance, we fail to influence this class of cases with our silica not always because it is not indicated but because the immunizing products which it produces cannot penetrate the infected area owing to a blocked lymph stream. Wright suggested that something must be done to re-establish the flow of lymph. This may be accomplished by various local measures—such as hot stupes, high frequency current, Bier's hyperemic method in certain cases, by curettement in other cases; but a very simple and often effectual method may be obtained by the use of a 5 per cent sodium citrate solution with equal parts of normal saline solution. The sodium citrate is a solvent to the fistular wall, and the osmotic action of the salt solution assists in the flow of lymph. When the parts become bathed with lymph and the circulation is established then the silica, which previously was ineffectual, will now accomplish the desired result.

In condemning the wholesale use of antiseptics we do not wish to be understood as being opposed to antiseptics. It should always be a first principle to adhere to the strictest attention to cleanliness and avoidance of introducing bacteria from the outside into an already infected wound. How often have we observed carelessness in this regard with reference to venereal diseases, on the ground that the condition was already septic! The greatest harm may arise from a secondary infection of this character. What we wish to emphasize is the point that antiseptics are of little value in combating infection in a wound for the well-known reason that the bacteria which come in contact with the irrigating solution have accomplished their work and are being carried along with the discharges. The microbes that it is desirable to destroy are imbedded in the tissues where the antiseptic is unable to reach them. On the other hand such solutions do positive harm by injury to the delicate reparative cells which are thrown out by the tissues. In cases where stimulation is desirable some form of iodine may be used to advantage. In such a procedure it is not antisepsis so much as the stimulative reaction on the part of the tissues which is affected. For mechanically removing pus nothing is better than normal saline solution. It has the added advantage of tending to encourage a better flow of lymph with the attendant protective qual-

ities. For the protection of newly forming granulation tissue a cerate into which is incorporated calendula, echinacea, or hypericum as indicated has found favor in our hands. We always keep in mind when applying local treatment to infected wounds that we benefit, if at all, by assisting the body as a whole to react in a curative manner.

A consideration of the treatment of wounds is not complete without mention of the curative value of auto-therapy as well as some of its disadvantages. An example of the simplest method of giving a patient a dose of the toxin from his own infection may be accomplished by massage or passive motion of a joint which is infected. By such a procedure the circulation in the part manipulated is increased, infective foci are broken up, and a greater or less amount of toxin is thrown into the general circulation. Increased breathing or exercise in a case of pulmonary tuberculosis usually gives the patient a dose of his own infecting toxin, and as a result in both cases cited an elevation in temperature is the clinical evidence of the toxin having been freed in the circulation. There are disadvantages in such a procedure, for in the first place live bacteria may be freed by the manipulation and carried along in the circulation to a possible new focus for spread of the infection; again there is no way of measuring the dose of the toxin given the patient by such manipulation and thus it is the most difficult process to avoid producing an over-toxic state. In this connection we should make mention of auto-therapy as practised by Dr. Duncan of New York. There is not time in this paper more than to mention his extensive work in this field. Duncan takes the position that the toxin produced by the germs growing in the body of the patient should be the ideal toxin to stimulate the curative reaction in that same patient. There is no question in our mind of the soundness of such reasoning.

Every theory advanced in favor of vaccine therapy including its homœopathicity is evidenced in favor of Duncan's contention. The question arises as to being able to measure the dose, to procuring the toxin reasonably free from other material such as, pus cells, fibrin, dead tissue and the various sections of the body which themselves act as irritants when injected into the body. If we are agreed that it is the bacterial toxin that is the factor in producing disease, then as homœopaths and scientists we maintain that those same or similar toxins will assist the body to its own defense, producing antitoxins for that purpose. Every other substance that accompanies the curative agent in the dose of medicine is not alone of no value, but of possible injury to the patient. It would seem to us then that to procure the toxin

direct from pus or some secretion or excretion of the body is a most difficult if not impossible task.

The so-called vaccine treatment is practised under two general methods, by use of stock vaccines and autogenous vaccines with phylacogen as a variant of the two just mentioned. It must be said at the outset that one of the greatest objections to the average vaccine is that the preservatives used in its production cloud its therapeutic purity and action. We must produce a vaccine that is free from live bacteria and contains no foreign material.

We wish to go on record as saying that stock vaccines, as used, whatever good they may do in individual cases, are unscientific except as a bacterial diagnosis is made in each case and the bacteria of the stock vaccine used concur with the diagnosis. The use of the nosodes, which have had a proving, we believe to be a more scientific procedure. It must be evident to all of us that administering stock vaccine on the clinical picture in no way makes sure a complete bacterial diagnosis. Such practice is akin to compound poly-pharmacy methods of practice or the combination tablet.

The autogenous vaccine even though it be a mixed autogenous vaccine, in principle, is based upon a clinical bacterial diagnosis of the individual case under treatment. The ideal vaccine is made from the bacterial growth of the causative germ or germs. It should be free from live bacteria and chemicals. When a filter can be produced that will insure a bacteria-free filtrate, then we shall be provided with a toxin capable of producing the symptoms of that particular bacterial disease.

It must appear to the listener that so far vaccine therapy has to be accompanied by unusually specialized knowledge and then its value must be qualified by many conditions. It not only has assisted in the solution of the etiology of disease but it has been the keystone to the explanation of the curative action of therapeutic measures already clinically proven. We regard as one of the most notable experiments of recent time the work of Dr. Ralph Mellon on the effect of Baptisia on the agglutination of typhoid bacilli. It is a great satisfaction to note in the June 1914 number of the *British Homœopathic Journal* that Dr. C. E. Wheeler has verified Dr. Mellon's experience with Baptisia by a similar test. We maintain that such splendid work cannot be ignored by the scientific world indefinitely. It must be understood, however, that the opportunity for such experimentation is the golden opportunity for our school of medicine. It is our chance to demonstrate to the scientific world that what we have contended for more than a hundred years is correct. There is a much higher purpose than simply proving our point. It is that the

homœopathic scientist is better fitted by training and temperament than other workers. He is a therapeutist by choice and it is his especial business to work in this field. The place for such work is in our homœopathic colleges, and the machinery for such work should be in our laboratories for the teaching of materia medica.

We venture a prophecy. It is, that in the final analysis, the crowning achievement of the vaccine treatment of infection will be, that some scientific Moses will rise up out of the field of investigation, big enough to prove to the scientific world that for every infection with its myriad of symptoms, there is an attenuated drug which matching those symptoms is able to call forth a reaction on the part of the body cells for cure of that disease.

May we be allowed to go a step farther and say that this same principle of action will be carried into the field of preventive medicine and the production of immunity be brought about by the small dose of the single remedy?

When that day does arrive there will be a list of names among which will be Richard Hughes, Burnett, Hering, T. F. Allen, Jones, Wheeler, Watters, Mellon and many others unknown to the great scientific world of today who will be looked upon as among the constructive scientists of all times. But standing out alone as a thinker one hundred years ahead of his time will appear the name of one man, the father of therapeutics, Samuel Hahnemann.

SEX HYGIENE.*

By F. W. Winter, M.D., Wymore, Neb.

That a spirit of unrest, inquiry and investigation is pervading the minds of the American people generally, seems much in evidence. Whither are we drifting, socially, morally, and physically, are the questions of the day. Our puzzled clergy and moralists are considering and devising means and methods whereby the public and individual consciences may be quickened and moral and religious sentiment and fervor rekindled in the minds and hearts of our people. Our physicians and scientists are worrying over the decline and degeneracy of the human race because of certain diseases and blood deterioration, and society itself is becoming aroused at the more than crowded conditions of our benevolent institutions, houses of correction and criminal confines; all becoming a burden upon society, and a source of alarm

*Read at the meeting of the Nebraska State Homœopathic Medical Society, May 18 and 19th, 1914, Lincoln, Neb.

to our philanthropists and economists as to their support and maintenance.

The increase of defectives in the state of Illinois during the last 30 years has been more than 30 per cent. Insanity throughout the country is increasing more rapidly than the population. Between 1890 and 1900 our population increased 21 per cent, while during the last six years of that decade, the number of insane increased 35 per cent. Not only is insanity on the increase, but we are fast becoming a nation of mental defectives and moral degenerates. What this country needs most of all, is pure, clean blood. We cannot expect good human stock from bad human stock. It can only be had by keeping men with impure blood out of wedlock, thus affording protection to womankind and childhood against the ravages of disease resulting from blood contamination and thereby assuring a cleaner and better generation for the future.

It is claimed on good authority that over half of the American people is more or less contaminated by venereal disease alone. Statistics show that 50 per cent of the men become infected with one or the other of its forms before the age of 25 years, and 80 per cent before the age of 30; just the period when most men seek to enter the marriage relation.

In the light of such facts what is to be done to remove and prevent such a condition of physical and consequent mental and moral degeneracy? Preventive medicine in this case would be a misnomer, unless any action or step taken to prevent disease be called a medicine. However, be that as it may, the tendency in medicine is rapidly shifting from the pound of cure to the ounce of prevention, and since 75 to 80 per cent of all diseases and consequent misery and woe of the human family is entailed upon it by venereal contamination, the subject of "Sex Hygiene" for thoughtful consideration, on such an occasion will surely not come amiss.

Hunger and sex instinct, or self-preservation and procreation, are the two mainsprings or motive forces that impel mankind to action. But how have we dealt with them as far as our developing civilization is concerned? Carefully and intelligently enough as regards the production and supply of life's necessities, their purity and preparation as food, thus guarding ourselves against those diseases which might arise directly or indirectly from this source. But what have we done as far as the other great moving force, the sex instinct, is concerned? Until within the last decade practically nothing. We as a people have refused to look this fact in the face and to deal with it in the same scientific manner as the other. In fact, we have allowed it to run riot without interference, trusting to blind instinct for adjustment in this matter,

with the result that we are deluged with a wave of immorality crossing our country for several years past; resulting in a high tide of widespread prostitution, divorce, and venereal contamination which upon investigation is appalling to behold, much more to realize!

And with such knowledge staring us in the face we seem to be paralyzed, not knowing how and where to begin to give the instruction necessary to stem this tremendous tide, and to regulate and direct this immense force to be productive of the best and most perfect results in the propagation of humankind, producing a people in its most perfect form, physically, mentally, and morally. In educating the present and future generations along these lines and in creating an abhorrence toward the mating of the unfit, be the defect mental, moral or physical, is the solution for the advancement and proper propagation of the human race. With such knowledge in hand, and a correct application, Eugenics, so much discussed of late, will take care of itself.

Yet as regards the management and control of this all-important force, sex instinct, we not only do not give substantial instruction, but allow the paths of our children which they must travel, to be beset with all manner of mantraps, such as sensual plays, pictures, picture shows, and books. We don't seem to realize that unless the forces thus brought into play are guided by knowledge and warning, by precept and example, they cannot fail to end in disaster.

There seems to be a persistent hesitancy to instruct our young girls in matters pertaining to their sex in spite of the fact that Judge Lindsay of Juvenile Court fame at Denver declares that 90 per cent of the girls who have fallen, according to his experience, had received no instruction whatever concerning sex matters during those crucial years of their life. "They go wrong," he says, "out of ignorance of the gravity of what they are doing."

Dr. Samuel Betz of Kansas City, a member of and lecturer for the International Anti-White Slave Association, in speaking of the "White Slave" traffic, has this to say:—

"As to the girls caught in the net of the traffic, I have the biggest word of blame for the mothers. Almost the universal cry of betrayed and fallen girls is, "Had mother only told me."

Likewise it must be abundantly clear that the amount of misery accruing to women as a direct result of ignorance of their sexual organization, is a most serious blot upon our civilization. Just as unjustifiable is the ignorance in which we keep our boys as regards the dangers of self-abuse and venereal infection. Most of them who acquire this disease do so in the first flush of their sexual vanity, before they are aware of the far-reaching conse-

quences they entail upon themselves, their offspring and posterity. If ever there is need of the saying "forewarned is forearmed" it is when our boys and girls enter the adolescent age.

From these facts it is evident that by denying opportunity of knowledge we have not efficiently protected our boys and womanhood in the past, and if they are to be protected at all, it must be by knowledge and not by ignorance. You can never do anything against vice until you have educated the people to know the dangers of it. Hence, to sum it all up most concisely, the true preventive in medicine against most of the ills to which flesh is heir, the most loathsome and disgusting at that, is to educate, educate, educate; the education of our boys and girls, the education of the people, not only the classes but the masses, in the vari-branches of Hygiene, and especially that pertaining to their sexual natures and to sex relations.

But the great stumbling block seems to be when, where, how, and by whom this information may best be imparted? Shall it be at the home, in the school, at the church, or on the street? Shall it be the parent, the teacher, or physician, the minister, or the little blackguard associates of our boys and girls? And lastly at what age? These all are questions about which there seems to be a great diversity and expression of opinion, and what should have been everybody's, heretofore has been nobody's business.

The dawning of public recognition of the fact of the need of sex instruction for the rising generation, because of the exceeding prevalence of the social evil with all its concomitant degradation, and the visible effects of the ever-increasing stream of venereal poison pouring into the veins of the human race unchecked, is conclusive evidence of the great neglect in the past, and shows the necessity of immediate energetic steps and means being taken and employed to stay this mighty invasion upon the healthy mentality and morality of our people as a nation, and the human race.

Too intent upon the acquisition of the almighty dollar, the chief goal of ambition of the outgoing generation, its shadow has almost entirely eclipsed our duties toward our offspring, our fellow-beings, and society to the extent that we are now reaping our reward in being overcome by this wave of immorality, vice and disease. Truly the harvest is great.

The greatest and strongest objection raised against sex instruction is the fear that it is apt to put forward by some years the time of suggestion and temptation, more so than already existing inevitable opportunities do, and that safety lies in diverting the attention from sex details. Whether this assertion be a fact or not, sexual thoughts are not ordinarily aroused until the physical has reached that stage of development, and depends largely

thereon. This tendency, if true, can only be overcome by counter-knowledge, warning, precept and example, disclosing the evil consequences and dire results if this force be allowed unbridled sway. And the time for giving this information is when questions are asked by our children regarding these things. Silence and punishment as practised in the past, have failed. A great deal will therefore depend upon the character and manner in which this instruction is given and by whom.

Instinctively we all agree that the home and especially the parent is the most proper place and person. But, alas, has there not been too much of ignorance even among the parents, to give the needed instruction? Or has it been simply neglect or cowardice? Nevertheless, as one writer puts it:—"No one but her mother has any business teaching a girl what a young woman should know and she who shirks the obligation to teach it, either from ignorance or prudery or in cowardice, is guilty of parental neglect so gross that she becomes the real offender in her daughter's lapse into unchastity. It is here, then, that primary responsibility must rest for the present state of gross sex immorality, and a social atmosphere surcharged with wantonness. The fact of the whole matter is, everybody has been shirking his duty, all along the line, from the parent to the teacher, from the teacher to the preacher, from the preacher to the physician, let the cause be what it may, until the evils resulting have become so great that there has been a general awakening to the fact that something must be done to stem this awful tide.

It is but recently that medical men have joined hands with the school men in the sex hygiene movement. Dr. Hugh Cabot, a distinguished Boston physician, very much favors sex instruction in the public schools and suggests education rather than punishment as a remedy for social evils. Former President Eliot of Harvard, head of the American Federation of Sex Hygiene, and other members, also hold positive views of the need of sex instruction. It is a question assuming great importance in many school systems. Chicago is wrestling with the problem. Lectures on Sex Hygiene are being provided to parents and to groups of high school pupils, expecting ultimately to extend the instruction to the elementary schools if the work with the older pupils proves satisfactory. Biological study prefaces sex-teaching and gives to students an outlook and an attitude of mind necessary to a foundation for a proper understanding of the much complicated problem of human life. New York teachers, and those from other cities, report considerable success in embodying sex instruction into elementary work in Biology. Supt. Hyatt of California has issued a leaflet on sex instruction considered worthy of dis-

tribution by the United States Government, while the American Federation of Hygiene has drawn up the most careful outline yet devised for sex education at every stage of life, both in school and at home.

One thing is plain and evident from present observation, and that is the need of more widespread and specific information among the people regarding sex hygiene in all its bearings. The public must be taught that practically all patients with locomotor ataxia and paresis owe their trouble to an antecedent syphilis; that brittleness of the bloodvessels, known as arterio-sclerosis, is also due to syphilis as are certain forms of "heart disease"; that blindness in children is due largely to gonorrheal infection at birth, as well as to syphilis; also that the gonococcus must be charged with a large proportion of the sterility in both sexes, and the misery of many women whose productivity ends with their first confinement. And since there is such great need of more knowledge of sexual matters among the people generally, it behooves every one, be he parent, teacher, minister, or physician, who has the knowledge, to impart the same to his child, his neighbor, and his fellow being, not however in an officious, or domineering way, but in a quiet, inobtrusive, prudent, and sincere manner at such times and opportunities as will and do present themselves in the ordinary affairs and walks of human life.

Are we as physicians doing our full duty along this line?

CLINICAL DEPARTMENT.

Conducted by A. H. Ring, M.D.

Case 10-E. Diagnosis:—Korsakoff's Syndrome.

This patient is a man 53 years old, born in Boston of Irish parents. Occupation, liquor dealer. He has been a small but constant drinker for years, and for the past year has had several drinks a day amounting to from a pint to a quart of gin or whiskey, yet he has seldom shown any outward effects and his friends say they never saw him under the influence of liquor. His history shows, however, that for the past three years he has been unable to attend properly to his business and for several months has got things badly mixed up. Has been absent minded, simple, irresponsible and very forgetful. When first seen examination revealed the following:—

Orientation—Knew his name but gave age as 41, later said—"I guess 35 to 40."

Place—Good deal of confusion in his answers as to this place. Says that the building is owned by ——— (evidently thinking that the examiner is asking about the store that he keeps). After questioning he said that this place was outside of Lowell—"You've got one of my doctors on the staff."

Time—Gives date as "September 10 to 15—Thursday." (Correct date is Thursday, August 20, 1914.) Is it 1840? "No about 15—1815—Yes in that direction." Grasp on surroundings—"People come here to be treated for conditions of the head, etc." Recognizes nurses and doctors as such.

General education—8 x 2 = 16. 12 x 8 = 108—96. 9 x 6 = 54. 12 x 12 = 144. 13 x 11 = "well 10 x 13 = 130—let it go at that." Largest city in the United States—"a little back on that." Largest city in the world given as Paris. Where is that? Ans. "Not a part of Massachusetts." Distance from here to New York as 230 miles. "It might be five nearer or further—time by train about four or five hours." Named New England States as follows—"Maine, New Hampshire, Vermont, Rhode Island, Connecticut—I guess that is one of the largest parts." Q. What is an island? Ans. "Surrounded by water—not including Ireland." When asked to name five rivers gives the following—"Mississippi—there's what you call Cairo and Mississippi you got that." Oceans? "Indian Ocean—Indian Ocean—I'm stuck." Lakes? "Can't name any." Civil War—"Was fought away back in 1851." When was it finished? "1850—51. President then was Wm. McKinley. President now—the last president of the United States was different than it is now." Finally said Wilson. Governor of Massachusetts

—" This name is up—here in Lowell—Governor here in Lowell—Walsh." Mayor of Boston—"Well John A. Fitzgerald was." Who is now? "Confound it, when I know the name and I can't tell you, to tell the truth." Now says Civil War was fought in 1840 sometime.

Remote Memory—(wife says he left school when 14). Says he left school about 1825 or 30—when 25 or 30. Asked again what year that was in, said "I should say about 25 or 30." Married about 40 years ago. (19 to 20 years right).

From the above it will be seen that his memory is poor and at times there is considerable confusion.

Recent memories—Asked how long he has been in this building here, said "four years." (Had just arrived). When told he was wrong, said "Well three, anyway." Asked if he had ever been in this office before, said "Well, no, not for a year." Who runs this building? Answered Mr. T———. A male attendant happened to come into the room, and patient identified him as a nurse. Was asked if attendant had been treating him for four or five years, answered, "No, as there had been no occasion for it." But patient insisted that he had been around here for two years. Q. Who came here with you? Ans. "Dr. K recommended me." Q. Who came with you? Ans. "My partner." Q. When was that? Ans. "Some day last week, Friday or Saturday. My intention was to come and stay a few days with this gentleman (points to attendant). Now says he has been in business. Says wife has been here about ten days ago (she had just left him). When patient was asked what he had for breakfast said, "I had what you bring into people up together." Asked if it was scrambled eggs, said "yes." Denies having anything to drink or of taking any walks since being here. (He hasn't).

Hallucinations of all types denied.

Delusions—none of persecution or self-condemnation obtained. Does believe he has been here longer than he has, but it is due to his confusion.

Emotional tone and motor phenomena—sits about the piazza and in his room. At times appears restless, gets up and goes to his room or part way. During the examination he fidgeted in his chair and had a rather serious expression, and when he saw his inability to answer questions he had a confused, perplexed look.

Flow of thought—Answered questions at times relevantly, at others irrelevantly, due to his confusion. Was not coherent except when telling of the scrambled eggs. Had some difficulty in choosing his words. Recited test phrases as "truly rural"—"popular popularity" quite well. On repeating the sentence, "this is the time for all good men to come to the relief of their country," he

substituted another word for relief, and on his first attempt to recite the sentence he forgot part of it.

Insight—Says he is "run down"—that his "memory is fine" and that he has no mental trouble.

General appearance—Patient is well developed and very obese, weighing about 325 pounds. Color is good. He is pleasant, but his face expresses confusion. Hair grayish brown.

Head—is large and symmetrical.

Eyes—on contraction of orbicularis—left forces open easier than right, i. e., offers less resistance. Temporal movement slightly limited in both eyes; otherwise, ocular movements are good. No nystagmus. Can't tell how many fingers or lead pencils are being held up because of mental confusion. When asked how many pencils says, "1-2-3-4-5." Left pupil irregular, small and does not react to light. Right pupil much larger and reacts to light O. K. Left reacts to distance. Right does not.

Ears—left drum hard to see—looks moist and yellowish. Right drum not seen. Cerumen in both canals.

Face—dilated capillaries of face become quite reddened on lying down, left side moves a little better than right. Tongue is central, dry and slightly coated brown, slight tremor. Both sides of forehead move well. There is a twitching about the mouth on showing teeth. Right face also twitches when at rest.

Nose—mucous membrane very red—deviation of septum-convex to left. Right middle turbinate enlarged and both nasal passages narrowed.

Mouth—No upper teeth, thirteen lower caps. Roof markedly injected and looks peppery. Tonsils moderately enlarged—soft palate injected—Both sides of palate move equally well.

Chest—thick chest wall.

Lungs—breathing sounds good—left a little cleaner than right.

Heart—apex beat not palpable—heard best in third left space. Base at second intercostal space. Left border 14½ cm. from mid-sternum line and 2 cm. outside mid-clavicular line. Heart regular, all sounds distant and muffled, very soft systolic at apex. P^2 and A^2 about equal.

Systolic pressure 160. Diastolic 120. Pulses good volume and tension.

Abdomen—pendulous—liver edge not felt—no pain or tenderness.

Genitalia—left testicle larger than right.

Extremities—slight œdema. Two very superficial scars on right knee 1½ cm. and 1 cm. in diameter. A similar one on inner side of right thigh, a couple about the left knee. There is an old

scar over left patella and the skin is attached firmly to patella. Considerable tremor of extended hands.

Reflexes—of both arms present—left seems greater. Abdominals not obtained. Cremasteric present. Gait unsteady swaying and ataxic. He has occasionally fallen. Left K. J. markedly increased. Right K. J. present and only moderate contraction. Ankle jerks active, left a little more so than right, plantars are apparently normal; Wassermann report negative.

Though it had been evident to his friends and family that the man was not well for some time the acute state which led them to seek treatment had existed only about a week. This is characteristic of Korsakoff's disease, sometimes called polyneuritic psychosis.

It is a toxic psychosis and is due to alcohol in about two-thirds of the cases, though a similar picture may result from infectious states as typhoid and tuberculosis, also from the use of drugs as arsenic and lead. Stoddard reports two cases in the young from arsenic given for chorea. In alcoholics it is frequently preceded by delirium tremens.

The characteristic thing about the disease is the memory defect —illusions of memory with attempt to fill in the gaps by fabrication. Illusions of recognition are also quite constant, so that the patient greets strangers as old friends and recalls as facts any incident which is mentioned. Such patients are highly suggestible, showing a distinct abeyance of the critical and judicial faculties. For example, our patient was accosted by a visiting physician whom he had never met before. The doctor at once guessed the condition and said "I met you at the beach last night. That was a fine supper we had together, wasn't it?" to which the patient replied that it was and that they must have another soon. "Who was that fine looking girl you had with you?" asked the doctor. The patient smiled sheepishly and said "Don't give me away, will you." Then he went on to tell all about her (all fabrication).

This patient had many dreams and sometimes carried his fancies over into his waking state. He would talk freely about realities and things he had done, but could not understand how he had come to do them.

The pathology shows the disease to be organic. There is degeneration of the cortical cells seen best in the giant cells of Betz. The cell body is swollen, the nucleus swollen and excentric, later the cell shrinks and degenerates. This is called axonal degeneration and is found when the main nerve fibre from the cell has been damaged. And this is what one would expect in a degeneration secondary to neuritis. There may also be punctate hemorrhages of the cortex. If there has been much multiple neuritis as there

often is, similar changes are found in the anterior horn cells of the spinal cord.

In our case there was some motor but no sensory neuritis.

Prognosis—As would be expected from such a pathology, recovery though usual is never complete. Mild cases may regain after several months to a year or more a fairly useful mind and body, but careful tests will reveal deficiencies. The more severe cases result in various degrees of impairment even to severe grades of dementia.

The treatment may be summed up as rest and hydrotherapy over the acute period. Later, massage, active exercise and electricity to restore atrophied and flabby muscles. Reëducation of memory and attention.

For remedies Butler suggests that the following are most frequently effective:—aconite, anacardium, arnica, arsenicum, belladonna, bellis perennis hypericum, nux vomica, plumbum, zincum met.

A NEW MATERNITY BUILDING FOR THE MASSACHUSETTS HOMŒOPATHIC HOSPITAL.

Announcement is made of a gift of one hundred thousand dollars for a new Maternity building for the Massachusetts Homœopathic Hospital. The donor modestly wishes his name withheld from publicity until the building is complete and ready for dedication. The plans are drawn, the contracts signed, and construction will begin at once. This munificent gift was secured to the Hospital through the friendly intermediary of Dr. and Mrs. Horace Packard.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors.

Reprints furnished at cost.

BEARDING THE LIONS.

As one reads the set of resolutions unanimously adopted by the National Society of Alienists and Neurologists at their third annual meeting, held in Chicago, July 17 (a portion of which is published in this number), he cannot be indifferent to the conviction that the physician is quite as much, if not more, of a factor and moving force for moral reform than any other class of men. In these resolutions are embodied a consideration of the five great factors which are largely productive of the mental and physical degeneracy which is today so alarmingly noticeable. These factors are summed up in the following resolutions:

"*Whereas*, It is well recognized by alienists and neurologists the world over that certain major factors are the chief causes of physical conditions accompanied by mental derangement and deficiency; and

"*Whereas*, These major causes are largely, if not wholly, controllable and eradicable; and

"*Whereas*, These major causes are alcoholism, habit-producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings, and hereditary influence, including the immigration of the physically and mentally unfit.

"*Therefore, Be it Resolved*, First: That we recommend to the proper State authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted."

It is gratifying to note that this National Society has placed itself upon record in no uncertain terms as condemning without qualification the use of alcohol both as a medicine and as a beverage. Note the further resolution:

"The committee on 'Alcoholism as a Causative Factor of Insanity' reported the following resolutions, which were unanimously adopted:

"*Whereas,* In the opinion of the meeting of Alienists and Neurologists of the United States in convention assembled, it has been definitely established that alcohol when taken into the system acts as a definite poison to the brain and other tissues; and

"*Whereas,* The effects of this poison are directly or indirectly responsible for a large proportion of the insane, epileptics, feeble-minded, and other forms of mental, moral and physical degeneracy; and

"*Therefore, Be it Resolved* that we, unqualifiedly, condemn the use of alcoholic beverages and recommend that the various State legislatures take steps to eliminate such use; and be it further

"*Resolved,* That we recommend the general establishment by all states and territories of special colonies or hospitals for the care of inebriates; and

"*Resolved,* That organized medicine should initiate and carry on a systematic persistent propaganda for the education of the public regarding the deleterious effects of alcohol; and

"*Be it Further Resolved,* That the medical profession should take the lead in securing adequate legislation to the ends herein specified."

The *Gazette* has for some years taken a pronounced stand against the use of alcohol, claiming it had no place in the armimentarium of the physician and the sooner eliminated the better. In an editorial of October, 1913, it had this to say upon this subject, which seems strikingly similar in tone to the text of the resolutions just quoted: The questions which now seem settled are: (1) That alcohol has no place in medicine. (2) That whether food or poison, its consumption is productive of physical and mental degeneracy. (3) That its effect upon the higher moral centres is the one great productive factor in criminality. (4) That its baneful influences are inherited to the extent of producing mental defectives, idiots, imbeciles, epileptics, and lunatics. With a practical unanimity of opinion upon these four points, what is the duty of the medical profession toward alcohol?"

The attitude taken by this Society upon the subject of controlling venereal diseases is no less radical as is shown by such resolutions as the following:

"*Whereas,* Syphilis is responsible for a large percentage of all insanity and mental deficiency.

Be it Resolved That:

"First: Health Departments, (Municipal and State) should be equipped to make laboratory examinations for Venereal Diseases.

"Second: All Hospitals for the Insane should be equipped to make laboratory examinations for Venereal Diseases.

"Third: Hospitals and Dispensaries for the treatment of Venereal Diseases should be provided.

"Fourth: Physicians should be *compelled by law to report cases of Venereal Diseases, as is now done in the case of other contagious diseases* (Italics ours).

"Fifth: Applicants for marriage should be required to furnish health certificates.

"Sixth: Lectures and Bulletins should be offered freely to the public regarding Venereal Diseases."

Here again the *Gazette* has urged these same measures, as is to be seen in an editorial entitled, "Should Venereal Diseases be Reported?" (February, 1913). Not only did the *Gazette* advocate that such diseases be reported the same as any other contagious disease; but it anticipated this National Society by recommending that State hospitals be provided for treating such diseases. It will further be noticed that this Society does not "hedge" in its position concerning the teaching of sex hygiene in the public schools. Notice these words:

"That adequate teaching of the principles of heredity and sex life be initiated and fostered in the home with the view to its introduction into the curricula of schools—above the grammar grades—this instruction to be given to the sexes separately."

The homœopathic profession has from the start taken a lead in all these matters which pertain so vitally to the welfare of the race. The President of the American Institute in his annual address, delivered at Atlantic City, dwelt especially upon the subject of alcohol, urging the profession to take a stand looking toward its ultimate eradication. He urged the profession to be more active in their efforts to control venereal diseases, suggesting a method whereby such diseases could be reported without any undue exposure of the person so afflicted. His address also contained a strong plea for better sex education and the introduction of sex teaching in the public schools just as soon as suitable text books and teachers could be provided.

These are some of the new problems which confront our present-day civilization. They are the lions in the pathway leading toward disease elimination, and we can neither go around them nor turn back. We must beard them, and the physician, of necessity, must lead the attack.

OBITUARY.

J. Marcus Barton, M.D.

Dr. J. Marcus Barton died on September 30 at his home, in Worcester, Mass. He had been ailing for almost three years since suffering an attack of heart disease.

Dr. Barton was a native of Worcester, and was the son of Jedediah and Mary (Lathrop) Barton. He received his medical education in the New York Medical School and the Hahnemann Medical College of Philadelphia. After practising for a time in Orange, N. J., he came to Worcester to act as assistant to Dr. William B. Chamberlain. Three years later he opened his own office at 6 Elm Street.

On March 1, 1910, Dr. Barton was given, with Dr. J. K. Warren, also of Worcester, a complimentary dinner in celebration of the 40th anniversary of their graduation into the practice of medicine.

Dr. Barton was a former president of the Worcester County Homœopathic Society, a member of the American Institute of Homœopathy and the Massachusetts Medical Society, was attending physician at the Hahnemann Hospital, and was a 32nd degree Mason.

He leaves his widow, Mrs. Annie R. (Warner) Barton, and three sisters, Mrs. Frank Nichols and Miss Elizabeth Barton of Manhattan, Cal., and Mrs. Georgie Marcy of New Haven.

Francis M. Bennitt, M.D.

Dr. Francis Marion Bennitt, for many years a practising physician in Springfield, Mass., and in Chicopee, died at his home, on July 27, 1914, aged 57 years. He had been ill for several weeks from pernicious anemia. In his death the city of Springfield lost one of the best of its unpaid office-holders, for Dr. Bennitt was a most faithful steward of the trust imposed in him as a member of the school committee for many years.

Dr. Bennitt was born in Big Flats, N. Y., October 10, 1857, the son of Mr. and Mrs. Myles C. Bennitt. He began his education in the public schools of Big Flats, and later attended Cook Academy and the University of Rochester. He did not graduate from the latter institution, but left his studies to teach school at Coudersport, Pa., for two years. He then spent a year in special study of biology at Cornell University, going from there to the New York Homœopathic Medical College and Flower Hospital, from which he was graduated in 1883.

He began his practice in association with another physician in Putnam, Ct. He came to Springfield in the spring of 1884 and after a short time in this city removed to Chicopee, where he practised until 1896. In that year he went abroad for two semesters of study at the University of Berlin, and on his return took up his practice in this city. He was in continuous practice except for a year spent in private study abroad in 1903-1904, until a few weeks before his death.

Both in Springfield and in Chicopee Dr. Bennitt was identified with many activities outside of his profession. He served on the Chicopee board of aldermen and was for many years chairman of the board of health of that city. From December, 1902, until his death he was a member of the Springfield school board, and for the last two years had been chairman of the board. He was a director of the board of trade from 1902 to 1904, and was a member of the Economic Club and Hampden Lodge of Odd Fellows.

For many years Dr. Bennitt had been actively interested in the Wesson hospitals. He served on the staff of the Wesson Memorial Hospital for several years, and was a member of the building committee, the board of managers and the board of directors of the Wesson Maternity Hospital. He was a member of the Springfield Academy of Medicine and of the American

Public Health Association. He was one of the founders of the Forest Hills Crematory, near Boston, the first to be established in this country.

He married in the fall of 1887 Miss Elizabeth Chandler Allton of Putnam, Ct., and leaves five children, Allton, Brace, Chandler, Dorcas and Rudolph. Mrs. Bennitt died March 2, 1906.

BOOK REVIEWS.

The Foundation of Normal and Abnormal Psychology. By Boris Sidis, A.M., Ph.D., M.D. Published by Richard G. Badger, Boston, and The Copp, Clark Co. Limited, Toronto. Price $2.00.

This is a book well worth reading. Sidis has acquired a remarkable command of English for one first educated in the Russian tongue and his occasional oddities of expression serve rather to impress his ideas than to cloud them.

He takes issue with many of the traditional and accepted tenets of didactic psychology. For example, he thinks that the present teaching of perception is far too simple, and after reviewing and discarding all past theories divides it into its primary and secondary elements which he discusses at length in a most original and satisfactory manner.

He lays emphasis on the fact, with which we agree, that the best approach to an understanding of the psychic life is through the study of the abnormal mind.

He ridicules attempts at so-called applied psychology. "The claims made by psychologists as to the industrial efficiency which psychology can give is ludicrous in the extreme;—as a matter of fact the psychologist has nothing to say on the subject of advertisements, industry and business but commonplace trivialities expressed with all the pomposity of scholastic authority."

He hits Prof. Münsterberg hard when he says, "The same holds true of the practical pseudo-psychologist who has invaded the school, the court, the prison and the immigration bureau. The intelligence tests are silly, pedantic, absurd and grossly misleading." He makes an elaborate plea with extensive arguments in favor of the practicability of hypothecating a subconsciousness and thinks it a necessary basis for an understanding of disassociated and other abnormal mental states. And he condemns as contradictory and absurd the idea of an unconscious mental life advanced by the physiological psychologists. He defines the sub-consciousness as "mental states which have consciousness but do not reach the personal consciousness.

Freud is roundly condemned:—"this psycho-analytic school has unfortunately fallen back on the Herbartian psychology with its metaphysical Reals or ideas which by their mutual tension keep suppressing one another. The special theories . . . . in regard to desire, to sexuality and to voluntary suppression of unpleasant and painful ideas are entirely gratuitous and false in the light of modern psychological and clinical experience."

Thus it will be seen that Dr. Sidis has opinions which he does not hesitate to express in most decided terms. Whatever one may think himself it is always refreshing to read the arguments of one who has formed definite conclusions and expresses them clearly and fearlessly.

As usual Mr. Badger has done his part in presenting the material in a type and paper pleasant alike for the eyes to read and the hands to hold.

REVIEW OF MEDICAL JOURNALS.

The North American Journal of Homœopathy, September.

1. *The Need and Use of a Repertory.* Case, E. E.

The first two paragraphs of this paper could stand a few pertinent remarks. The author informs us that, "Our materia medica is a rich inheritance from the pioneers in homœopathy." Quite so, but unfortunately it is mostly an inheritance of the pioneers, and those who have followed them have been too ready to accept this inheritance without enriching it or correcting it. The author furthermore quotes Hahnemann's following injunction to the profession: "When we have to do with an art whose purpose is to save human life, any neglect to become master of it becomes a crime." Have the followers of Hahnemann gone about becoming masters of this art in the proper way? Should we accept his dogmatic teachings in blind faith, or should we not, in the light of the advance in medical science, devote more energy toward ascertaining the relative value of homœopathic therapeutics, and toward investigating the fundamental principles upon which these therapeutics rest? The practical value of the repertory depends upon the accuracy of the symptoms recorded in the materia medica. The majority of homœopathic physicians doubt the accuracy of many of the 300,000 symptoms recorded, and consequently doubt the practical applicability of the repertory. By devoting more attention to the fundamentals of homœopathy the therapeutic method will become more accurate, an achievement which will appeal more to the members of the American Institute of Homœopathy than repertorial works based on a materia medica the immensity of which in its present form renders it unwieldy, and the inaccuracy of which renders it unreliable. We admit that in its present form a repertory containing only reliable symptoms is the most accurate method of applying the materia medica in homœopathic therapeutics, but what we plead for is more attention, more investigation of the fundamentals of homœopathy wherein much uncertainty remains.

2. *Verifications.* Coleman, D. S.

Successful use of gelsemium and other drugs.

3. *Hemorrhage after Tonsil Operations.* Fifield, H. L.

4. *Philosophy and Science.* Beck, M. C.

Interesting, clearly put arguments written in an attractive style. Worth reading for every physician.

5. *Making Red Blood.* Hitchcock, St. C.

The article contains most extraordinary claims based upon observations of the most general and often superficial type. The lack of detail in the reports of cases causes the reader to doubt the real efficacy of the treatment employed, which consists of a smooth electric current from a machine of the author's invention. The author states: "During all this the number of red blood corpuscles will be seen to mount up in every individual receiving this current, no matter in what part nor for whatever malady they be treated." Such bold assertions reflect doubt on the author's familiarity with hæmatology as well as on his powers of observation and ability to interpret results.

6. *Editorial on Osteopathy.*

Worth reading by every homœopathic physician who professes to be open-minded. C. W.

The British Homœopathic Journal, August, 1914.

1. *The Evolution of Homœopathy.* J. Johnstone.

In this excellent presidential address to the British Homœopathic Congress held at London, July 3, 1914, Dr. Johnstone reviews a number of the more important discoveries in medical science and intelligently discusses their bearing on homœopathy and upon homœopathic practitioners.

2. *Some Recent Gynæcology in the General Practice of the Tunbridge Wells Homœopathic Hospital.* E. Neild.

3. *The International Homœopathic Council's Year.* G. Burford.

The British Homœopathic Journal, September, 1914.

Special tuberculin number.

The use of Tuberculin by Homœopathic Practitioners, Based on a Collective Investigation.

1. *Summary of Contributions.* G. F. Goldsbrough.
2. *Tuberculin from a Pathologist's Point of View.* J. G. Hare.
3. *Notes on Tuberculin Cases, 1910-1913.* E. C. Lowe.
4. *Notes on a Case Treated by Tuberculin A. T.* A. E. Hawkes.
5. *Cases and Remarks by Various Practitioners.*
6. *Summary of Clinical Evidence on the Use of Tuberculin.* C. E. Wheeler.

Discussion on the Use of Tuberculin.

S. B. H.

The Medical Advance, August, 1914.

1. *Christian Science and Homœopathy.* B. C. Woodbury, Jr.
2. *The Causative Forces of Mental Deficiency.* H. C. Kehoe.
3. *Clinical Cases.* A. W. K. Choudhury.
4. *The Feeble-Minded—Their Environment.* H. C. Kehoe.
5. *Conferences upon Homœopathy.* M. Granier.
6. *Migraine and its Treatment.* L. Vannier.
7. *The Prodrome.* C. M. Boger.

S. B. H.

The Homœopathic World, September, 1914.

1. *The Evolution of Homœopathy.* J. Johnstone.
   Published in the *British Homœopathic Journal,* August, 1914.
2. *Tubercular Glands.* Dr. Eaton.
   Eaton gives a long discussion of this subject including many helpful suggestions regarding treatment.

The Clinique, September, 1914.

1. *X-Rays and Radio-Active Chemicals in the Treatment of Gynæcological Conditions.* E. H. Grubbe.
2. *A Study in Comparative Materia Medica.* A. L. Blackwood.
   Blackwood reviews certain remedies useful in cardiac disturbances.
3. *Vaccine Therapy.* W. H. Wilson.
   A brief, superficial, elementary review.
4. *Hydatidiform Mole.* D. D. Culver.
5. *Renal Calculus.* G. H. Ripley.
6. *Report of Daily News Sanatarium.* M. Everham.

S. B. H.

The Journal of the American Institute of Homœopathy, September, 1914.

1. *How to Secure and Retain Health and Happiness.* J. P. Sutherland.
   Published in the *New England Medical Gazette* for September.
2. *Verifications. D. E. S. Coleman.*
3. *A Study of Factors in Parturition.* G. Fitzpatrick.

The author presents a very concise review and reports five cases. He discusses the cephalo-pelvic equation, the muscular efficiency and the psychic equilibrium of the patient in some detail, and urges the consideration of every pregnant woman as though she were a pathologic woman; and every obstetrical case as though it were a surgical case.

4. *Report of Council on Medical Education.* G. Royal.

The accumulated details of inspection of our medical colleges have been printed and sent to the members of all State Boards of Medical Examiners and members of the faculties of our Colleges.

A news-letter has been compiled and sent to one thousand newspapers and to one thousand homœopathic physicians.

Literature has been sent to members of the senior classes in colleges of liberal arts, ninety-six of the responses have been tabulated and the names and addresses sent to the homœopathic colleges of the country.

A beginning of hospital inspection and grading has been made.

A study of the situation in Kansas City has been made and the outlook is hopeful for a rehabilitation of the college there.

Cleveland-Pulte has become affiliated with Ohio State University and the oral reports of the deans of the other homœopathic medical schools throughout the country are optimistic.

5. *Effective Teaching in Our Colleges.* R. S. Copeland.

To Copeland's mind, the idea of having only post-graduate colleges of homœopathy, is arrant nonsense. Instead of crowding the curriculum with courses destined to make a composite specialist out of the student, it is the duty and the one duty of the homœopathic college to teach and apply homœopathy. The surest guarantee of our future lies in the support of our educational institutions.

6. *A Case of Heart Massage through the Diaphragm after Apparent Death —Recovery.* J. C. Wood.
7. *Inflammation of the Verumontanum. An Etiological Factor in Sexual Impotency and Neurasthenia.* E. R. Sprague.
8. *Preventive Medicine in Private Practice—The Family Physician.* E. L. Nesbit.

Nesbit opines that the acute economic situation—the lowered average income—in private practice is due largely to the wasteful overlapping in the medical service: *i. e.,* the public health service encroaches unnecessarily upon the preserves and duties of the private practitioner. "The public is still spending too much of its money and thought upon wrecking-crews and costly apparatus and too little of both upon the signal service."

S. B. H.

The Journal of Ophthalmology, Otology and Laryngology, August, 1914.

Observation as to the Effect of Telephone Operating upon the Eyes. LeRoy Thompson.

"The subject of occupational disease is one of the most important which we have before us in the present age, and the following report is presented with the hope that this society will get an unbiased picture of telephone operating so far as it relates to the health of the telephone operator herself. For several years we have been reading about the "Safety first" movement, compensation laws and corporation medicine, but unfortunately up to within the past four years no great advance has been made in the real work of disease prevention as well as cure, in most companies.

"The Bell Telephone Company has always shown an interest in the welfare of its employees; long before legislation accomplished anything regarding the rights of the wage earner it made plans and carried them out for the betterment of the health of its working masses. The Chicago Telephone Company, with whom I have been associated for nine years, typifies the great advance of the whole Bell system, medically as well as in other lines. Within the past eighteen months a large comprehensive sick benefit pension and insurance plan has been organized under the medical supervision of Dr. Alva H. Doty, former Health Commissioner of the Port of New York. I will not take your time in giving you the details of this organization, except so far as it relates to the essayist's subject, but I cannot help but remark that nothing but the latest and best in everything has been taken into consideration, gleaned from experience and investigation in Europe and America.

"Many of the medical profession are ever ready to criticise a corporation without any definite knowledge to back up their assertions, and one of my main reasons for writing on this subject is the appearance of criticism from time to time in the public press—and I am sorry to say in medical journals also—which do not give the true status of the telephone operator and her health. . . .

"As Oculist and Aurist for the Chicago Telephone Company and Chief Physician for the Employees' Benefit Association, having practically all cases of sickness among the employees come under my observation, I have

had an unusual opportunity to investigate occupational disease so far as it relates to telephone employees, with special reference to the eye. . . .

From November 1, 1913, to February 1, 1914, there were four cases due to eye trouble among 2,798 employees (operators and supervisors). Of these four cases, one was due to eye strain, one to abscess and two to conjunctivitis. The maximum time away from work was twenty-one days and the minimum time eleven days, the average time was twelve days.

"To sum it up we had only 90 cases of eye trouble from April 1, 1909, to February 1, 1914. Does this look as though telephone operating was injurious to the eyes?

"Before a girl is taken into the employ of the Telephone Company she is given a physical examination and her eyes are examined so far as practical vision is concerned, viz.:—The test requires that she read letters with each eye separately equal to J. 5, at arm's length. Any defects of speech are noticed and the hearing tested, any one below normal being rejected. Glasses do not exclude if vision is J. 5 with them on. Of course, this keeps out many who would otherwise succumb to eye trouble of one kind or another, but it is impossible to eliminate everyone who suffers only a slight abnormality or latent ametropia. . . .

"Conclusion.—My experience has been one of close association with the operators and supervisors for nine years; my conclusions are based on that experience and not on a few patients who happened to be telephone operators needing medical assistance. Telephone operators are not subjected to as much eye strain as the average clerk. Conditions which are apt to be blamed on the occupation have been absolutely proven to clear up after the eye condition was treated and glasses fitted where necessary, the operator continuing at the same occupation under exactly the same working conditions as before."

D. W. W.

SOCIETIES.

Third Annual Meeting of Alienists and Neurologists of the United States.

At the Third Annual Meeting of Alienists and Neurologists of the U. S., held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 13-17, 1914.

The committee on "The Causative Forces of Mental Deficiency" reported the following resolutions, which were unanimously adopted:

"We feel it unwise at this time to make any recommendations in regard to constructive legislation owing to the lack of proper evaluation of available data as to causes and sources of mental deficiency."

"We do, however, recommend and urge segregation of mental deficients and the furthering of investigations as to the causes and sources."

The committee on "The Prevention of Insanity," reported the following resolutions, which were unanimously adopted:

"*Whereas*, it is well recognized by alienists and neurologists the world over that certain major factors are the chief causes of physical conditions accompanied by mental derangement and deficiency, and

"*Whereas*, these major causes are largely, if not wholly, controllable and eradicable, and

"*Whereas*, these major causes are alcoholism, habit-producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings, and hereditary influence including the immigration of the physical and mental unfit.

"*Therefore, Be it Resolved*, First: That we recommend to the proper state authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted.

"Second: That the sale of all habit-inducing drugs be strictly regulated in all states of the Union.

"Third: That municipal or state control of venereal diseases be established, with proper treatment for indigent patients, to the end that the spread of syphilis and gonorrhea be prevented.

"Fourth: That proper, special hospitals for the care and treatment of alcoholism and drug addictions be established.

"Fifth: That municipal, state and national inspection of labor conditions be regularly maintained and child labor abolished.

"Sixth: That no known defective dangerous to himself and to others, should be permitted to have unrestricted liberty.

"Seventh: That adequate teaching of the principles of heredity and sex life be initiated and fostered in the home with the view to its introduction into the curricula of schools,—above the grammar grades,—this instruction to be given to the sexes separately.

"Eighth: That the various states pass reasonable and universal marriage laws, that will be reciprocal, in preventing the marriage of the physical and mental unfit.

"Ninth: That a psychopathic laboratory be connected with the criminal courts, common schools and railroads, and that transportation companies and public service utilities responsible for the actual safety of the general public should have their employees regularly examined as to their physical and mental fitness.

"Tenth: That, inasmuch as state, county and city public health institutions should have as their superintendents, men of highest qualifications, who may devote their best efforts to their tasks, we recommend that all such positions be subject to civil service examinations.

"Eleventh: That in addition to the above, we recommend a nation-wide campaign of education conducted through the public press, university and medical schools, boards of health, state, county and city boards of education, womens' clubs and other proper educational mediums, upon the true significance of the development—physical, mental and moral—of the individuals and the race, and finally, we recommend that a committee be appointed to promote the enactment of the above resolutions.

The committee on "Alcoholism as a Causative Factor of Insanity" reported the following resolutions, which were unanimously adopted:

"*Whereas,* In the opinion of the meeting of Alienists and Neurologists of the United States in convention assembled, it has been definitely established that alcohol when taken into the system acts as a definite poison to the brain and other tissues; and

"*Whereas,* The effects of this poison are directly or indirectly responsible for a large proportion of the insane, epileptics, feeble-minded, and other forms of mental, moral and physical degeneracy; and

"*Whereas,* The laws of many states make alcohol freely available for drinking purposes; and therefore cater to the physical, mental and moral degradation of the people; and

"*Whereas,* many hospitals for the insane and other public institutions are now compelled to admit and care for a multitude of inebriates; and

"*Whereas,* Many states have already established separate colonies for the treatment and reëducation of such inebriates, with great benefit to the individuals and to the commonwealths.

"*There be is resolved* that we, unqualifiedly, condemn the use of alcoholic beverages and recommend that the various state legislatures take steps to eliminate such use; and be it further

"*Resolved,* That we recommend the general establishment by all states and territories of special colonies or hospitals for the care of inebriates; and

"*Resolved,* That organized medicine should initiate and carry on a systematic persistent propaganda for the education of the public regarding the deleterious effects of alcohol; and

"*Be it Further Resolved,* That the medical profession should take the lead in securing adequate legislation to the ends herein specified.

The committee on "Syphilis as a Causative Factor of Insanity," reported the following resolutions, which were unanimously adopted:

"*Whereas,* Syphilis is responsible for a large percentage of all insanity and mental deficiency.

"*Be it Resolved* That:

"First: Health Departments, (Municipal and State) should be equipped to make laboratory examinations for venereal diseases.

"Second: All hospitals for the insane should be equipped to make laboratory examinations for venereal diseases.

"Third: Hospitals and dispensaries for the treatment of venereal diseases, should be provided.

"Fourth: Physicians should be compelled by law to report cases of venereal diseases, as is now done in other contagious diseases.

"Fifth: Applicants for marriage should be required to furnish health certificates.

"Sixth: Lectures and bulletins should be offered freely to the public regarding venereal diseases.

"Seventh: Newspapers should be requested to use their best influence to educate the people concerning venereal diseases.

"Eighth: Sex Hygiene should be taught in the public schools, above grammar grades, to the sexes separately.

PERSONAL AND GENERAL ITEMS.

Dr. and Mrs. Wesley T. Lee of Somerville, Massachusetts, spent the months of July and August in a pleasure trip through the West, visiting the Grand Canyon of Arizona and the Yosemite Valley in California.

Dr. H. E. Russegue of Hartford, Connecticut, has removed from No. 1 to No. 74 Farmington Avenue.

Dr. Frank A. Davis, B. U. S. M. 1898, has removed from Hotel Buckminster to Hotel Brunswick, Copley Square, Boston.

Dr. Helen B. Todd, class of 1914, has accepted an appointment at Norwich State Hospital, Norwich, Connecticut, from October first.

Dr. Horace Packard returned to Boston from England late in September.

Dr. Helmuth Ulrich, who since February has been taking postgraduate work in Pathology in Berlin, returned to this country on the White Star steamer "Adriatic" which arrived in New York on September 25. Dr. Ulrich will resume his course in Hæmatology to the Junior class of Boston University School of Medicine.

Dr. N. Emmons Paine has resumed active practice once more and is receiving mild mental and nervous cases in the Newton Sanatorium, as in former years.

Dr. G. H. Osgood has opened a Roentgen laboratory at 636 Beacon St., corner of Raleigh St., Boston. Hours, 3 to 4 p.m., and by appointment.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX NOVEMBER, 1914 No. 11

ORIGINAL COMMUNICATIONS.

DEAN'S REMARKS AT THE OPENING SESSION OF BOSTON UNIVERSITY SCHOOL OF MEDICINE—OCTOBER 1, 1914.

By JOHN P. SUTHERLAND, M.D., Boston, Mass.

Ladies and Gentlemen:—

Once more, and for the sixteenth time, it is my greatly prized privilege and pleasure, no less than my official duty, to stand before you as the representative of the Faculty of Boston University School of Medicine, and in the name of that Faculty to extend to the student body here assembled on the opening day of our 42nd annual session a very sincere and heartfelt welcome. That welcome is not simply a formal expression; it is not intended to be a routine courtesy, an utterance devoid of meaning, but a welcome that carries with it to each individual student, to each one of you, a declaration of profound interest in your welfare, happiness and prosperity; a hospitable reception into the medical brotherhood we represent; an assurance that the ripest fruits of our experiences, investigations and studies are wholly yours; and a pledge that our earnest efforts and coöperation are devoted to your acquisition of knowledge and skill and technic in things medical, to the development of your judgment and the ripening of your wisdom and ability to be of true service to your fellow-men during the years to come. Our welcome today includes a genuine sympathy with you as you stand at the beginning of the academic year with high hopes, laudable ambition, set determination, and some of you possibly with something of dread and apprehension as unknown tasks confront you. We know something of the burdens you as students will have to carry;—we know something of the struggles and hardships which will handicap some of you, and we appreciate the difficulties and vexations and discouragements ahead of you,—but we can offer you at the outset every encouragement to take up your year's work with joy and courage and confidence, because we are convinced that with honest, persevering, intelligent, well-directed, patient effort, and a

judicious use of youthful energy, and the mental and moral equipment which is yours, a high reward and sure success await you.

It is quite appropriate on such an occasion as calls us together today, that attention should be called to some of the things of special interest to us as students in Boston University School of Medicine and as members of the medical profession, which have occurred since we last met. In regard to our own school:—this year, beginning today, marks an epoch in our history. It has been our privilege in several instances to anticipate the lengthening of courses and the raising of standards which have occurred in medical education, and it has always been the desire of our Faculty to adopt new ideas or methods or to introduce modifications into the curriculum that promise greater thoroughness in the work done, or that will increase the value of the instruction given, and add to the effective equipment of our graduates. This year, in accordance with announcements made during the past three or four years, new requirements for admission to the School are in effect. Hereafter preliminary courses equivalent to the first year's work in a recognized college or technical school in biology and chemistry and physics and a reading acquaintance with a modern language (French or German) will be required of all applicants for admission to the School. It has long been recognized that the fundamental medical sciences needed a heavier and more stable foundation than can be obtained in even the best of the High and Preparatory Schools; that with such a foundation, work in the medical school would be easier, less irksome and difficult, and would result in a more solid preparation for the strenuous demands of active practice. This pre-medical year, as it is often called, will soon be one of the requirements of all the State Examining and Licensing Boards, as it is now of some. This goes to show that this elevation of standards meets with wide approval and that medical schools are not wholly responsible for the innovation. The idea is not to increase the difficulties encountered by the would-be medical student, but to insist that in addition to ambition and earnestness and determination the student shall have had adequate preparation.

Your attention is called, also, to certain changes which have been made in connection with the Senior year work. During the ensuing year the morning hours are to be devoted to practical clinical work in the main Hospital, the Out-Patient Department, the Contagious Hospital and the Westborough State Hospital. In these institutions there is a great wealth of clinical material, the fuller utilization of which than has been possible heretofore should add incalculably to the value of the instruction given you. The possibilities in the way of practical technical training thus thrown

open to you should so familiarize you with the manifestations and the treatment of disease that there should be no embarrassment when in due season you assume the responsibilities of private practice. Our registrar will give you further information concerning these clinics, and I earnestly bespeak your generous coöperation in initiating the new method. This varied and concentrated clinical work it is hoped and expected will strengthen and broaden your knowledge of disease and your ability to minister to afflicted humanity.

The administrative department of the School life has undergone a change that unquestionably has attracted the attention of those of you who have read the Annual Announcement and Catalogue for 1914. Dr. Frank C. Richardson for a period of thirteen years, in addition to his duties as professor of Clinical Neurology and Electro-Therapeutics faithfully, creditably and satisfactorily served the Faculty and the student body as Registrar. His extra burden of the past three years as Medical Director of the Evans Memorial of the Massachusetts Homœopathic Hospital has taxed even his sturdy physique and vital energy and has demanded more time than he has had at his disposal. It became simply a necessity for him to resign the Registrarship in order to find time for his other duties. There is no necessity for me to eulogize him. You all know how seriously, leniently, tactfully, sympathetically, patiently, justly he attacked the problems presented to him as Registrar. You know something of his marked self-control, his sense of humor, his helpfulness, and I am sure you agree with me that no student ever applied to him in vain for a fair hearing. Fortunately for us all he still retains his position on our teaching staff.

As a worthy successor to Dr. Richardson, the Faculty elected Dr. Edward Everett Allen, who as Professor of Anatomy needs no introduction to those of you who have weathered the storms of the freshman year. For thoroughness, executive ability, the possession of high ideals, for liking to have things right, for loyalty to all the interests of the School, for promptness and efficiency, Prof. Allen already has made a reputation for himself, and the Faculty feel justified in their appointment, and in the assurance that the Registrar's office will retain its important function in the administrative affairs of the School.

I am sure you will welcome the news and rejoice in the fact that the Massachusetts Homœopathic Hospital, with which our School is so closely affiliated, is to have its facilities greatly increased and its opportunities for helping humanity distinctly enhanced by the addition of a much-needed and longed-for Maternity. Through the generosity of a Boston man and a staunch homœopathist the origi-

nal plans for a combined Out-Patient Department and Maternity, modified to comply with modern requirements, are to be carried out, and before the season is far advanced work will be under way. By this munificent gift the portions of the main hospital now used for lying-in purposes will be released for other needed uses, and the capacity of the Hospital will be increased by 80 beds. The unusual opportunities for instruction in Obstetrics which the School has enjoyed will be made of even more exceptional value.

It is not going far afield to refer to the unusually successful meeting of the American Institute of Homœopathy which was held in Atlantic City late in June. In attendance; in number, variety and character of the papers presented and discussed; in the amount of business transacted; in the social features of the meeting the session of 1914 will stand out prominently in the long history of successful meetings held by our venerable national society. It should interest us especially this year since a member of our own Faculty, Prof. DeWitt G. Wilcox, was president of the Institute, and many of the unique features and a very large share of the success of the meeting were due to the force of his personality, his contagious enthusiasm and his unremitting devotion to the best interests of the Institute during his presidency. The report of the Council on Medical Education to the Institute including the announcement that the Kansas City Homœopathic Medical School was being reorganized on a sound and permanent financial basis with bright prospects for the future, and that the Cleveland-Pulte Medical School had been merged into the Homœopathic Medical Department of the Ohio State University at Columbus with a most encouraging stability of organization was received with appropriate felicitations.

I trust your interest in medical matters is sufficiently wide and keen to permit you to bear with me a moment while I refer to a remarkable meeting held in London, England, during the week of July 27. This meeting was the fifth annual session of the Clinical Congress of Surgeons, an American organization which this year met by invitation in London and assumed an international character. The chief significance of the meeting, perhaps, lay in the fact that over 1,000 American surgeons, men of matured minds and wide experience traveled 3,000 to 6,000 miles and back for the purpose of taking a short, but peculiarly valuable post-graduate course; in the laudable effort to broaden their medical horizon; to investigate the merits of the newest surgical methods; to improve their knowledge and technique; to learn something that might be utilized for the benefit of their own patients. The membership included many surgeons who had grown old in practice, but they were not so old that they had lost ambition and energy and desire to keep fully abreast of the times. The exercises were chiefly clinical, for the

daily programme included 80 to 90 or more clinics at the various London Hospitals. Operations were performed by many of the most widely-known British surgeons, men of world-wide reputations, and it was most interesting and possibly a little disconcerting to study their differences in technique. In one hospital, for instance, the abdominal wound was sutured after an appendicectomy and a simple dressing of one layer of gauze and a drachm of collodion was used. In another hospital, after the removal of a big multiple fibroid by a subtotal hysterectomy the abdominal wound was closed, a free application of iodine made, and one layer of gauze laid on the abdomen as a dressing. In other hospitals, after abdominal operations the usual many-layered dressings of gauze and absorbent cotton and bandages were used. The clinics began at 8:30 or 9:00 a. m. and continued throughout the day, and the amphitheatres were literally crowded with eager, serious-minded, intelligent and attentive audiences. One may have visited many of the old hospitals before, but it is always impressive to find oneself in a hospital that was founded as was St. Bartholomew's, in the year 1102, or Guy's in the year 1721, or the Middlesex in 1745. During the week evening meetings were held, which were attended by audiences of 800 to 1,000 and which rarely closed before 11:30. At these meetings papers on vitally important subjects were read and discussed by specially qualified essayists and disputants. Although not a surgeon, I can testify to the stimulating character of the Congress and can appreciate its unique and far-reaching educational influence. Professors Packard and Briggs of our surgical department can give you details of and personal experiences from the Congress, if you care to have them.

A point I wish to make in this connection is this: during your undergraduate days please accustom yourselves to the idea that your student days are not to end with your graduation, but are to continue steadily throughout the rest of your lives. Intellectual stagnation is deplorable enough in any branch of work, but is disastrous and promptly so in the medical profession.

We have, of course, a special community of interests in the medical profession, and we cannot allow ourselves to neglect even temporarily the special work we have to do, or the peculiar mission we have to perform. To these things we must be faithful, but we cannot wholly withdraw, however, from the great and universal relationships of mankind which this year and at just this time are more definitely outlined than ever before in human history. It seems but a few short weeks since we closed our laboratories and clinics and completed our examinations and lecture courses, and were looking forward to a season of rest and recuperation and pleasure and even various profitable occupations, as an agreeable

change from the serious tasks of the year's work, but during these few weeks the instability of mundane affairs has been demonstrated with exceptionally convincing clearness. We parted just as our Northern latitude had passed through its springtime and the summer was opening full of promise. Harmony and peace seemed to reign in the affairs of men as in Nature. So rapid, however, is the march of events in this our century that the harvest is not ready and the autumn not arrived before by far the greater part of the civilized world is desperately engaged in what would seem to be a passionate, devastating, degrading, cruel, wicked and wholly unnecessary war! Its enormous proportions, its presumptive causes, its significance are such that we cannot permit the opportunity to comment on it to pass without attempting to profit from some of the lessons it teaches. Our modern nations boast of the great advances they have made in the arts, industries and commerce; they boast of their enlightenment, their education, their civilization; their unprecedented growth in morality, philanthropy and spirituality. In charity and altruism they pretend to have excelled all the nations of history.

What is the picture revealed to one who takes a survey of the condition of this same civilized world during the past few weeks and at the present time? One sees armies of millions of men confronting each other and in actual combat, with a proclaimed determination to kill, to maim and destroy their opponents. One sees destruction of property, ruination of business, a destroyed or ungathered harvest; towns, cities and country laid waste; the interruption of the ordinary activities of life, arts, industries and commerce; the arrest of all social, coöperative, instructive and useful international intercourse; the discarding of widely educative and civilizing and refining influences. One sees the utilization of all imaginable destructive mechanisms and forces and every conceivable effort to crush and kill; and not only the slaughter and maiming of the picked, the strongest and healthiest and most perfectly fit of the nations, with the immeasurable suffering on field and in hospital, but the incalculable, hopeless and helpless suffering of friends and relatives, the desolation of homes and the distress of widows and orphans.

In addition, one sees crippled nations, crippled industries, repression of natural developments, burdensome taxations,—a slow upbuilding of individual and national confidence;—and, worse, one sees the birth of rankling, lasting enmities, and corrupting distrust, and revengeful desires, and implacable hate that as moral and spiritual evils will require more time to heal than will the other more physical and more superficial injuries. The picture is not uplifting; not encouraging; not one to cause rejoicing, in spite of the

fact that in all probability someone will conquer; someone will come off the victor; that glory (so miscalled) will perch on somebody's banners. It is not to be overlooked that loyalty, patriotism, courage, heroism, endurance, patience, sympathy, generosity, and self-sacrificing devotion to duty are having and will have exceptional opportunity for exhibition and development,—but who doubts for an instant that these and other civic and moral virtues are already present and even active in a thousand ways among the truest specimens of manhood on the face of the earth today?

It may be appropriate to ask, What is the cause of all this bloodshed, and destruction, and suffering and death? Is the war being waged in the name of liberty, freedom, true civilization, universal brotherhood, love, Christianity? Let us see.

The nominal cause of the war, this awful catastrophe to the human race, is the refusal of Servia to accept certain fifteen conditions imposed by Austria-Hungary on account of the twice attempted and final assassination in Seravajos, Bosnia, on June 28, of Archduke Francis Ferdinand and his wife by Servian lads. Whether or not Servia as a nation was responsible for the assassination, it is worthy of note that Servia accepted nine of the conditions imposed by Austria, was anxious to submit other four to arbitration and refused to accept only two of the fifteen. This showed evidently a desire to make honorable amends, but it was not enough to satisfy imperious Austria. Therefore, Servia must be punished, and probably later appropriated or absorbed for its soul's good. But why the assassination of an archduke who presumably by his visit was intending to show his good-will? Probably not because of special personal animosity, because he had done nothing personally against Servia or Bosnia. But unfortunately six years or more ago, in 1908, Bosnia and Herzegovina for the sake of their own safety and the peace of Southeastern Europe were paternally absorbed into the to them uncongenial Austrian fold. As a result the Archduke Ferdinand, the acknowledged successor to the aged Francis Joseph, the Austrian Emperor, and the Archduchess, fell victims to the hatred of Bosnia engendered by the "absorption" of 1908. Revenge against Austria rather than a personal vengeance was probably intended.

Since Servia could not satisfy Austrian demands, punishment must be inflicted on her; war was declared and Austrian forces were sent on their retributive errand. The weaker nation while heroically resisting the threatened punishment, realizing that the final step would probably be territorial annexation to Austria-Hungary, naturally looked to Russia for at least moral and diplomatic assistance. Naturally again, Russia could not look complacently on while Servia probably was being annexed by Austria, whose territory thereby

would be extended too near the Mediterranean, the ultimate goal of Central Europe, to the detriment of Russia herself. Russia's pacific remonstrance might under ordinary circumstances have been fruitful and some compromise adjustment might have quieted the rising storm; but no, a peaceful settlement evidently was not acceptable to Austria's potent ally, and Russia was warned off by Germany. It was then demanded of France as the ally of Russia to declare formally her attitude in case of a Teuton and Slav clash. A deeply-cherished enmity against a former conqueror, plus a sense of loyalty to her ally, brought from France an acceptance of the challenge and Germany very promptly declared war on France. In accordance with a long preconceived strategical plan, preparations for the immediate use of which had been carefully made, Germany attempted to strike France a crushing blow, before she was ready to receive it, through Belgium. But Germany in compact with other nations 100 years ago had pledged neutrality to Belgium. A diplomatic request, therefore, coupled with certain bribes or promises, that German armies be permitted to utilize Belgian territory to invade France, was made of Belgium, which request with a dignified conception of true neutrality was refused. Without discussion of any sort the announcement was made that German armies were going through Belgium anyway, in spite of pledges and in spite of protestations, and dire vengeance was threatened if resistance were made. Belgium, however, with a truly civilized, possibly a Christian, conception of abstract right, justice and honor, or finding herself forced between the upper and nether millstones, absolutely refused, with magnificent heroism against overwhelming odds, to allow herself to be so prostituted as to permit one neighbor to strike another, with her permission, through her territory. She resolved to stand in the way of the already advancing avalanche, and appealed to the only uninvolved signatory to the neutrality compact for help. No humane nation could withstand such an appeal for sympathy and help: England especially. So she was drawn into the maelstrom. But unfortunately neither England nor France was prepared to offer prompt succor to the proud and honorable little nation, which did its best, and suffered devastation for it. The example she set, however, should go down as of its kind one of the most brilliant and heroic and worthy episodes of human history. Japan, Italy and Turkey in varying degrees and for various reasons became implicated, so that practically the whole civilized world, within a few short weeks, has become involved in a death-dealing struggle; while the rest of the world is suffering more or less on account of social, religious and commercial associations, ties of friendship and blood relationship with the nations immediately involved.

Has the question, What is the cause of the tragedy? been satisfactorily answered? I think not. Back of Bosnia's hatred, back of the regrettable and unjustifiable assassination, back of Servia's inability to satisfy irate and injured Austria, back of Russia's ostensibly friendly response to Servia's appeal, back of France's acceptance of Germany's challenge, and her declaration of loyalty to her ally, back of the invasion of Belgium, or in addition to all these things, influences have been at work which possibly have been more potent in precipitating the Armageddon than the causes enumerated. The attitude of the European nations of today, representing as they do the highest type of Western civilization, is like that of a group of different species of carnivorous animals, ready on the least provocation to spring at each other's throats; furtively watching the most insignificant movements of each other; wary, revengeful, distrustful. Such undesirable moral and mental qualities as envy, jealousy, malice, greed of territory and power, love of domination, arrogance and selfish ambition seem to predominate over humility, philanthropy, trustfulness, charity, kindness of thought and action, helpfulness and coöperation and similar qualities and activities of mind and heart. By way of confirming these assertions let me refer you to a book entitled "Germany in the Next War," by General von Bernhardi, and make a few quotations from it. The book was published in 1911 as a propaganda in behalf of war, to educate the German people to the idea of war and the important duty of making financial sacrifices to increase armament and support a big army. It is a phenomenal piece of literature and should be read by every person who desires to form an intelligent opinion on the distressing situation of the world today.

General von Bernhardi upholds the doctrine of "Self Assertion" in the individual and the nation; the doctrine of "conquest"; that "might is at once the supreme right" (p. 23); that "war is a biological necessity"; that expansion by acquisition of territory by war is a real necessity to a nation; that "war is an unqualified necessity. . . . and justifiable from every point of view" (p. 30); that efforts to abolish war are "absolutely immoral" and "unworthy the human race" (p. 34); he upholds also the doctrine of *"deliberately provoking war"* and selecting the favorable time for it; and applauds such wisdom and boldness (pp. 41-45); he teaches that "the end-all and be-all of a state is power" (p. 45); that there is nothing higher in the world's history than the state (or nation); that "trifling causes may form a justifiable *casus belli*" (p. 49); he quotes Luther as saying that war is "a business, divine in itself, and as needful and necessary to the world as eating or drinking or any other work" (p. 55); he asserts that the two great forces in shaping the destiny of Western Europe after the fall of Rome were

Christianity and Germany; and claims that Christianity is all right for the individual but is not to be considered in the affairs of State. He discusses how to win back the working classes to the ideals of State and Country and teaches that his people "must not hold back in the hard struggle for the sovereignty of the world" (p. 79). He naively says that the political rivalry between the two yellow races (Japanese and Chinese) "must therefore be kept alive" and "thus enable European powers to retain their possessions in Asia"; and that the support of peace aspirations and congresses was simply for the purpose of gaining time and deceiving opponents. One is startled to read (p. 106) that "France must be so completely crushed that she can never again come across our path"; that "interference" with another state depends "not on international right, but solely on power and expediency" (p. 112). Such an author naturally claims that "Safety lies only in offensive warfare" (p. 174) and that "Military power is the strongest pillar of a nation's credit" (p. 264). The plan of campaign that is being fought out is foreshadowed in a remarkably prophetic manner in this wonderful book, and it would seem justifiable from the quotations made and from the book as a whole to assume that the doctrines and teachings advanced and supported by Bernhardi are far more responsible for the terrible holocaust now afflicting Europe than was the assassination of Archduke Ferdinand.

It was my purpose to talk with you today, if time permitted, on a subject of possible value to us as medical students. Why then should we refer to the great war? What relationship can be assumed to exist between it and our work as medical students? Possibly a moral, at least, may be drawn from the conflict, as far as its etiology and existence are concerned, that is applicable to us as students of medicine. Predisposing causes from the etiological standpoint are frequently of greater significance than the immediately exciting ones, which are often insignificant little things, mere infinitesimal germs, for instance, and there is, I think, something in the predisposing causes of the present war that we as medical students may profit by considering. Immunity to what we call diseases may be inherited or acquired. National immunity to war very evidently must be acquired, for since the earliest records of history no nation has inherited it. How may it then be acquired? How may nations be made immune to this horribly malignant disease, war? In answer I would say in much the same way that individual human beings acquire immunity—that is, by a more or less slow process of thorough education. The tissues and cells of the body must be educated to resist malign or evil influences. By a process of education in things dietetic, hygienic, sanitary, physical, mental, moral and spiritual the individual body may be so strength-

ened and developed in healthy physiological reaction that it can overcome evil influences of whatever nature that tend to disintegrate, injure or destroy it. So with nations, which are only huge aggregations of individuals. Education in the broadest, deepest and truest sense is the remedy for many individual and national evils, and it is through education that universal immunity to physical, mental, moral and spiritual evils in individuals and to social, civic, political and national diseases may be acquired.

Let me briefly try to indicate what I mean by education and so avoid misunderstandings. A simple, short, comprehensive definition it may not be in my power to give. In most of our authoritative lexicons and dictionaries paragraphs and columns are devoted to the definition. Without quoting any lexicographer, I would call your attention to the significance of the probable derivation of the words *education*, to *educate*, etc. The idea evidently means to lead out of the darkness of ignorance into the light of knowledge or to lead out of ignorance and inefficiency into knowledge and competency. Education is not a mere training of the memory; it is not acquiring a few tricks in habits, manners, customs, traditions; it is not merely developing manual dexterity or technical skill in any art whatsoever; it is not merely becoming familiar with natural or applied sciences; it is not merely an unfolding of mental powers. It is more than all these. As J. F. Clarke, quoted in the Century dictionary, says "But education, in the true sense, is not mere instruction in Latin, English, French or History. It is the unfolding of the whole human nature. *It is growing up in all things to our highest possibilities.*" In this high sense it may be claimed that education at the best is an imperfect state of knowledge and power; that as an accomplished fact it is impossible and never can be perfected because finite mind never can learn or know all that infinity has to reveal. We should never lose sight of the fact that man, whether king or peasant, is born into a state of absolute ignorance and inefficiency. Man at the time of his birth is less equipped to participate in the struggle for existence than are other animals. The animals, as a rule, are born practically into all the knowledge and ability they ever possess, and education, except in the most superficial sense, is with them an insignificant matter. Man on the lowest side of his nature is born, in common with other animals, with certain so-called instincts, or inherited habits, but these after all are of limited scope and variety and are quite as likely as not to act as handicaps in man's ascent towards the high planes of thought and activity to which it is his right and privilege and duty to aspire. Man's education proceeds from his original state of ignorance along certain definite planes;—first along the natural or sensual. By means of his senses he learns to observe and become acquainted

with his environment. Later his mental faculties are awakened and he adds to his observation the power of reasoning. Still later, if he so wills, his spiritual faculties are opened to the enriching and developing influences which are near and accessible. To his natural powers of sensual observation and his mental powers of reasoning and memory, are now added those qualities of heart and soul which were doubtless included in Clarke's definition of education as a "*growing up in all things to our highest possibilities.*" It is on this high plane that man acquires conscience and conscientiousness; perception of truth as truth; humility; unselfishness; sympathy; love of service and usefulness; self-control; charity. And it is recognized by all that these qualities are the real things which distinguish man from the brutes. Mere brute force, dogmatism, arrogance, bigotry, conceit, intolerance, pride, lust, avarice, cupidity, distrust, craftiness, deceitfulness, greed;—these qualities probably no intelligent person would classify as among "our highest possibilities," and their possession does not signify a higher than the natural-mental plane of education.

Perhaps I need not point out the fact that in my opinion the present war owes its existence to a very insufficient education of humanity, in spite of the fact that those chiefly responsible for it are university men;—that is, they have been "educated" no higher than the mental plane, one stage only beyond the natural or sense plane whereon man and the brute creation hold fellowship. Such men need to be educated up to the idea—the easily proven fact—that brute force, euphemistically called "the sword," cannot make a wrong right; cannot "settle" a disagreement, a dispute or "difference"; cannot obliterate an offense, a slight or insult, fancied or real. No one can claim that the war was brought on in a spirit of benevolence, of altruism, or in behalf of universal brotherhood, freedom and liberty; or from love of use, or love of truth, or in a spirit of charity, or of Christianity. The moral faculties which differentiate man from the brute most evidently have not received education, training, development among those so-called "cultured" and "civilized" people to whose love of dominion and ambition to rule the war is due.

To apply these thoughts and ideas to ourselves as medical students. Very briefly, we are here for the express purpose of obtaining a medical education, a special kind of education. That is, we are here to acquire knowledge of the fundamental medical sciences and to become trained in the technique of the art of hea'ing. To accomplish this we must develop to the utmost point of keenness and accuracy our powers of observation; our memories must be made enduringly retentive; our powers of reasoning logically must be fostered; wisdom and judgment must be allowed to expand; and

our manual dexterity must be increased to its greatest utility. But please remember that even when our visual, auditory, tactile and other senses have become exquisitely sensitive; when our observation is able to include all sorts of detail; when our memories have become veritable storehouses of anatomical, embryological, physiological, pathological, bacteriological and other facts; when our reasoning powers have become reliable and effective; when our technical skill in manipulation of instruments and apparatus has been developed to a high point of efficiency;—even then we are but incompletely and only partly educated. These things all belong on the lower planes of natural, sensual and mental possibilities and are not to be ranked among the highest human possibilities. Let us cultivate our highest attainable scholarship, our best judgment and wisdom and reasoning powers and technical skill, but do not let us omit to develop our highest possible conceptions of duty, of honor, of justice, of our moral relationship with our colleagues, our patients, our neighbors. Let us strive to possess true charity, sympathy, unselfishness, humility, forbearance, patience, a cheerful optimism and allied qualities which will help to raise us to the higher planes of life which humanity was unquestionably destined to reach. Intolerance, bigotry, arrogance, conceit have done their part in retarding the development of medicine, have worked mischievous results and produced unhappiness in medicine as they have and ever will elsewhere, but let them find no resting or nesting places in our hearts or minds.

If we take up our year's work in the right spirit, with high ideals and broad conceptions of education in general and medical education in particular, with a fixed determination *"to grow up in all things to our highest possibilities,"* I am confident the year before us, upon which we enter today, will prove useful and productive and successful and happy, to a degree unprecedented in our various experiences.

The Massachusetts Surgical and Gynæcology Society will hold its next meeting in Pilgrim Hall, 14 Beacon Street, on December 9. The program will be unusually attractive, as it embraces up-to-date developments.

The subjects of the papers to be presented are as follows:

"Prophylaxis in Puerperal Convulsions," by S. H. Blodgett, M.D.

"Twilight Sleep," by A. J. Rongy, M.D., New York City.

"Treatment of Uterine Fibroids by Means of the Roentgen Rays," by W. H. Dieffenbach, M.D., New York City.

"The War of the Nations," by Col. Elbridge J. Copp, Nashua, N. H.

It is hoped that all physicians interested in these subjects will be present.

A CHAPTER FROM A POSSIBLE WORK ON BORDER-LAND DISEASES.*

By James C. Wood, A.M., M.D., F.A.C.S., Cleveland, Ohio.

INTRODUCTION.

In the March 1910 number of the *Journal of the American Institute of Homœopathy*, under the caption of "Homœopathic Propagandism," the writer published a signed editorial in which he discussed the wisdom of presenting the claims of homœopathy to the members of the regular school of medicine in a way that would be more in harmony with modern thought and modern methods than had ever before been attempted. At the following meeting of the Institute held at Narragansett Pier, Dr. R. S. Copeland, who had not seen my editorial, presented a paper to the Bureau of Homœopathy in which he advocated practically the same scheme outlined in the editorial. As a result of this editorial and Dr. Copeland's paper a committee consisting of Dr. Copeland, Dr. C. E. Fisher and myself was appointed for the purpose of preparing such a work as the one outlined. The plan then contemplated was the creation of a little book of not more than 50 or 60 pages dealing with fifteen or twenty polycrests, the indications being obtained largely from the literature of the older school, together with quoted therapeutic applications obtained from the same source, the object being to show the reader of the regular school that in an empirical way his own teachers of materia medica are recommending in numerous instances the homœopathic use of drugs. Of course attention was to be called to the finer distinctions in the way of individualization made by the homœopathic practitioner. The thought was to have a work of this kind published by some well-known publisher not of the homœopathic school, so that it would find its way into the hands of a much larger number of physicians of the regular school than would be possible were its sale exploited by homœopathic publishers and pharmacists. The thought, too, was to have the homœopathic pharmacies prepare a little case of not more than fifteen or twenty of the polycrests dealt with in the book, which could be introduced into the physician's office for experimental purposes at practically cost price. But this committee went the way of many committees. What was three men's work was no man's work. Two years ago the committee was granted further time, after reporting negligible progress. A year ago the committee was discharged, as it should

* Presented at the Atlantic City 1914 meeting of the American Institute of Homœopathy.

have been, after accomplishing nothing. The thought has nevertheless occupied a prominent place in my mind since that time and I have given it most earnest and serious consideration. After rereading the splendid works of Bœricke, Burt, Hughes, Dunham, Dyce, Brown, Dudgeon, Holcomb, Nash, *et al*, I have come to the conclusion that any sort of propagandistic literature which simply records the action of drugs upon the human organism with the idea of showing their homœopathic application to disease has not been and never can be very effectual in appealing to the average reader of the regular school, and especially to the younger men of that school. In fact, the younger men of all recognized schools of medicine of today are thinking in a language different from that of thirty or even twenty years ago. It is a language of chemical symbol of cubic centimeters, of micro-millimeters and of precise and accurate data. The great advancement made in bacteriology, in diagnosis, in laboratory analyses, in physical appliances for diagnostic and therapeutic purposes, and in serum and vaccine therapy, have created a new school of medical thought, a school which must have for its basis, first, premises that are logical and, secondly, conclusions that are applicable at the bedside; hence the clinical method of exploitation. In order, therefore, to attract the attention of a mind thus trained one must necessarily present his subject according to the very latest dicta of science. A bare, cold statement of facts regarding the action of a drug, especially when obtained from homœopathic sources alone, is not in my opinion sufficient to appeal to a mind thus trained. No one is more conscious than myself of the fact that, in the presentation of the illustrative case which is to follow, I have fallen far below even my own ideal of the kind of a work which I think should be produced. I am presenting it largely for the purpose of criticism, hoping thereby to obtain information which will enable some one in the homœopathic school much better prepared than myself to produce a work of the greatest possible value for propagandistic purposes. I do not think that I myself am the man best capable of creating such a work. I am absolutely sure that no busy surgeon of ordinary intelligence can give either the time or the strength to its creation while in the active practice of his profession. Its writer should, in my opinion, have first of all a thorough knowledge of internal medicine, and be a practical clinician. He should be a true believer in the law of similars or, if you please, in the law of substitution. He should be a most able diagnostician and entirely capable of determining the limit of drug action in contending against disease. But above all else he should be broad enough to keep constantly before his reader the thought that the homœopathic physician is first of all a

physician, and that he is ever ready and willing to utilize in dealing with disease any and every method that modern science has proved useful. Such a work should also emphasize, especially for the homœopathic reader, the diagnostic importance of certain symptoms of drugs which are often of the greatest import and which, in border-land cases, frequently call for surgical intervention. In short, he should present homœopathy to the reader, not as an exclusive system of medicine, but rather as an inclusive one —comprehensive, liberal and tolerant.

The time is, I believe, opportune for such a work as I have outlined. It is well known by everyone who has kept in touch with modern medical literature, or who has recently attended the great surgical clinics of this country and of Europe, that the internist whose work has so long been overshadowed by the more dramatic achievements of the surgeon, is again coming to his own. The modern surgeon is one whose mission is something more than a wielder of the scalpel. He must, if he wishes to obtain the best results, take cognizance of all the factors that go to make recoveries. The most interesting clinics held in Chicago at the recent Congress of Surgeons were those in which the surgeon and the internist worked side by side. As a surgeon I am ready and willing to confess that I believe too much surgical work is being done. *Too little attention is being paid to the patient, his constitutional bias, his disordered metabolism and his perturbed cells, and too much to the end results of disease.* I refer more especially to that class of lesions that come within the pale of border-land diseases, such as exophthalmic goiter, localized tubercular lesions, Hodgkin's disease, ulcerations of the stomach and intestines, the various inflammatory diseases of the pelvic and abdominal organs, the dysmenorrheas, the chronic kidney lesions and displacements, the various forms of neuritis and neuralgias, the various lesions of the nose, throat and upper air passages, etc., which at their beginning are plainly medical but which may at any moment become surgical, and often with great urgency. Having been for some years a general practitioner, and later an exclusive specialist, I perhaps can better appreciate the importance of border-land diseases than can the surgeon who has never been an internist, or the internist who has never been a surgeon. It is for this reason that I have chosen for my subject in the present paper one of the border-land diseases.

A work such as I have contemplated should be prefaced with a brief dissertation upon what modern homœopathy is, and, above all else, what it is not. A recent experience in dealing in an official way with a number of most broad-minded and scholarly surgeons of the regular school has convinced me that the average member of

that school has no conception of the most fundamental principles of homœopathy. Indeed, many of the surgeons of that school are so broadminded and liberal that they cannot see the slightest reason why we should exist as a distinct school, believing that the difference in therapeutics of the two schools is so slight as to make it no longer necessary for us to maintain a distinct organization. When we meet with men honest in this belief it is "up to" us as a school to show that there is, so far as internal medication is concerned, the greatest possible difference; but it is likewise up to us to present the claims of homœopathy in such a way that it will appeal to them. It is "up to" us, too, to revise our materia medica and in so doing to utilize any and every means at our disposal to make our provings accurate and dependable. I would therefore show in the preface the relationship of vaccine and serum therapy to homœopathy, quoting from men like Virchow who has said that "bacteriological therapeutics rest upon a homœopathic basis"; and from Wright who confesses himself the "arch-homœopath" of us all. I would call attention to the work done by Wheeler, Neatby, Burrett, C. Wesselhœft, Walker and Mellon, in order to show that the opsonic index can be favorably influenced by remedies other than the vaccines. I would call attention to the biological law formulated by Professor Arndt of the University of Griswald to the effect "that if strong irritants destroy vital processes, moderate ones favor and the minute ones arouse them to the highest activity." And while emphasizing that the smaller dose of the homœopathic school is not an essential but rather a corollary of homœopathy, I would utilize the splendid work done by Copeland in showing that the minute dose in the light of modern physics is not unscientific, but rather in harmony with modern teaching regarding the divisibility of matter. I would also utilize to the fullest the splendid work done by Korndœrfer and Sutherland in emphasizing the wonderful prevision of Hahnemann in anticipating much that has become a part of twentieth century medicine; but I would subject Hahnemann's writings to the same scientific analysis applicable to the writings of today. Finally, I would appeal to the reader, not from the viewpoint of a narrow partisan or sectarian, because, I repeat, modern homœopathy is anything but this, but from the viewpoint of one who desires at all times and under all circumstances to obtain the easiest, safest and best way to treat his patients, no matter whether that way be homœopathic or otherwise.

Presuming then, that my audience is composed of both regular and homœopathic physicians, I shall proceed to discuss the subject of

GASTRIC (PEPTIC) AND DUODENAL ULCER.

Gentlemen:—The first patient I have to present to you is a girl 22 years of age whose symptom complex is strongly suggestive of gastric ulcer. She is a servant maid and has been in ill health for more than 18 months. Family history negative. Her initial symptoms as given by her were those of dyspepsia, with eructations, pyrosis, anorexia, etc., although I more than mistrust that previously to the actual development of the stomach symptoms she suffered from anæmia, if not from actual chlorosis. For the last two months she has complained of a more or less constant burning pain in the epigastrium which is most intense soon after the ingestion of food. The pain is also felt almost constantly in the back to the left of the spine and opposite the tenth dorsal vertebra. There is during the attack much heartburn, with the gulping up of an excoriating acrid, bitter substance. At times the vomited matter has been brown or almost black, due to the admixture of blood. She is losing in flesh, her hemaglobin is low (70), her red blood count is but 350,000; there is a trace of albumen in the urine and there is indicanuria. The skin of the face and chest is, as you see, pigmented, and that covering the entire body is dry. Subjectively the prostration is marked, she complains of much thirst, though desiring water in small quantities only, and is exceedingly restless and nervous. Her general symptoms are all relieved by warmth. She fears that she is going to die, and it is more and more difficult, so her mother informs me, to lift her from her state of mental depression. A peculiar symptom of her attacks of gastralgia is a pain felt in the neck and jaw not unlike the pain of angina pectoris. She has frequent attacks of diarrhœa, and upon two or three occasions there has been tarry blood in the stools. Microscopic examination shows sarcinæ. Three specimens of the stomach contents were obtained for laboratory exploitation. The first, eight hours after eating, showed the stomach empty, thus demonstrating with a fair degree of certainty that there is no serious hindrance to the onward passage of food; there was, however, some blood obtained, unmixed with food, indicating that it was of gastric or duodenal origin. The second was obtained one hour after a test meal and showed a marked excess of HCl. The third obtained after a fast of ten hours also contained HCl. No yeast or sarcinæ were found in the last specimen, showing that in all probability there is no food stasis. There is an absence of the Boas-Oppler bacillus, as was to be expected in the presence of the HCl secretion.

Physical examination shows tenderness over the left epigastrium, with spastic contraction of the left rectus. There is an

hyperalgesic area which extends from the lower area of the left chest downward as far as the umbilicus. You will note that the slightest skin pressure over this area causes the patient to flinch, so that the sensitiveness is superficial and can by no manner of means be due to the communication of the pressure to the ulcerated area of the stomach, if ulcer there be. The patient's metabolism is involved, as is manifest by her general appearance. Deep palpation of the appendix area fails to elicit any unusual tenderness. The pelvic organs are apparently normal, with nothing in the way of malposition to suggest reflex stomach disturbance. There is slight accentuation of the second heart sound which can readily be accounted for by the existing anæmia. The respiratory sounds are normal.

Let us next proceed carefully to analyze the anamnesis obtained, both for the purpose of arriving at a diagnosis if possible, as well as for the purpose of outlining an intelligent course of treatment.

If we are right in our surmise that the difficulty lies in the stomach, we are fortunate in having to deal with one of the most accessible of the internal organs,—accessible alike to the chemist, the physiologist and the clinician. By means of the Rœntgen rays it can even be made accessible to the eye without the aid of the surgeon's scalpel. Notwithstanding all this, mistakes in diagnosis are not infrequent and a positive conclusion cannot always, with entire safety, be formed.

First of all, gastric and duodenal ulcers occur in women oftener between the ages of 20 and 30 years than during any other period of life. It occurs, too, with greater frequency in serving maids and in those whose work involves pressure upon the epigastrium, so that in men, weaving, cobbling and tailoring predispose to it. Impaired metabolism with resulting anæmia and chlorosis are undoubtedly important factors in the production of stomach ulceration, as they are also important predisposing factors in the creation of various other local and general affections. Usually associated with the malnutrition is auto-intoxication, which but adds to the tendency of local destruction of tissue. Hunter believes that gastric ulcers are not infrequently caused by emboli having their origin in an endocarditis of the mitral valve. The heartburn in this case, as in most cases, is undoubtedly due to the hyperchlorhydria present with probable regurgitation of the vomited matter in the œsophagus. The character of the vomited matter is not pathognomonic, because we may have the brown or black vomitus in other conditions, and especially in carcinoma. However, when entering into the symptom complex of this case it is most significant, and as we

shall see later is almost pathognomonic. The loss of flesh is not as marked as we would expect in malignancy. As a matter of fact malignancy can with a fair degree of certainty be eliminated, as there are no evidences elicited by either palpation or percussion of a tumor formation and the degree of emaciation and cachexia is hardly sufficient to suggest malignancy. Then, too, the analyses of the stomach contents with the excess of HCl and the absence of the Boas-Oppler bacillus counterindicate malignancy. While stomach cancers may occur at any period of life, they are more common between 40 and 70 years of age. Cancer, however, not infrequently follows in the train of gastric ulcer. The low per cent of hemaglobin and the decreased number of red blood corpuscles are due to two causes, the loss of blood and malnutrition.

There are other conditions simulating the gastric crises which this patient has from time to time experienced. Spinal cord diseases, especially tabes, produce gastric crises, which on casual examination simulate organic stomach disease; but we have to help us in the differentiation, the normal reflexes, the absence of shooting, lightning-like pains in the legs and of the Argyll-Robertson pupil. Again, we get in chronic gastritis persistent vomiting, which is occasionally blood stained, so that the symptoms of gastric ulcer may be counterfeited. But in simple gastritis the tenderness is more diffuse, the pain is not so severe, the vomiting is not so persistent or painful and there is diminished or absent HCl. I have seen alarming and almost fatal hemorrhage occur in cirrhosis of the liver; but in cirrhosis of the liver we usually have an alcoholic history, with a hardening and palpable liver and not infrequently ascites, all of which are absent in this case. The differentiation between duodenal and gastric ulcer is exceedingly difficult. Usually in duodenal ulcer the pain is in the right hypochondriac region and occurs two or three hours after meals. Sudden and recurring intestinal hemorrhage with pain in this locality, and with tarry or bright red stools, especially if associated with jaundice and with but little or no vomiting, suggests the duodenal location of the ulcer. The slight trace of albumen in the urine with the absence of casts is not especially significant. On the other hand, the presence of indicanuria is significant inasmuch as it suggests auto-intoxication of gastro-intestinal origin. Baar contends that all anatomic lesions of the gastro-intestinal tract show indicanuria, even simple lesions of the gastro-intestinal mucosa being sufficient for the absorption of the ever present indol. The pigmentation of the skin is also in all probability due to the resorption of toxins from the digestive canal and their retention. The thirst is probably due to the

slight inflammatory condition associated with the formation of the ulcer, as well as to the loss of blood. The mental depression is characteristic of that of stomach and digestive disturbances, intensified in this case by the neurotic temperament of the patient.

The pain felt in the neck and jaw are not unlike the pain of angina pectoris and is probably due to the same cause, namely stimulation through the vagus of the fifth cranial and upper nerve centers. Recorded in a homœopathic materia medica this symptom to some of you would look fantastic, but here we have it in an actual condition. It is a symptom occurring in the proving of ammonium bromide. The spastic contraction of the left rectus muscle affords us but little definite knowledge as to the actual location of the ulcer in the stomach, for the reason that it is due, as emphasized by Mackenzie, to an irritability of a certain area in the spinal cord with an exaggerated peripheral response. There is diarrhœa but no mucous in the stools, so that we are justified in eliminating chronic appendicitis which is so frequently responsible for mucous entero-colitis. The abdominal tenderness being located above the umbilicus with no right hypogastric hyperalgesia also suggests the absence of appendicular involvement; but it must not be forgotten that gastralgia with almost typical symptoms of gastric ulcer may be caused by chronic appendicitis. Paterson, Fenwick, Moynihan, Ewald and Wood have all emphasized this fact. Paterson cites a number of cases in which it was exceedingly difficult to differentiate gastric symptoms due to appendicular disturbance from true gastric or duodenal ulcer. Five of his patients suffering only from appendicitis vomited blood on one or more occasions, the amount in one case being 50 ounces. Paterson's theory is that the hemorrhage in these cases is due to the irritation resulting from the hyperacid gastric juice, although the fact must not be overlooked that because of the hyperacidity produced by a diseased appendix, true ulcer may be excited. Under the caption of "Gastro-intestinal Auto-intoxication and Mucous Entero-colitis" I have gone into this subject in detail.

Nor must we forget that symptoms simulating organic stomach disease may be produced in a reflex way by displacement or disease within the female pelvis. It is well known that lesions of whatever nature exciting or depressing the sympathetic nervous system may and frequently do interfere with digestion. The well-known sickening sensation produced by ovarian pressure is a familiar example showing the intimate relationship existing between the female generative organs and the stomach. In short, the evidence going to show that digestion may be disturbed by pelvic lesions acting reflexly, with consequent intestinal auto-

intoxication, is overwhelming. But pelvic lesions in the present case are absent and are likewise to be eliminated as causative factors.

The character of the pain does not always give us a clear idea of its cause. Mackenzie states that although the stomach is a hollow muscular viscus, severe cramp-like pains with violent peristalsis having its origin in the stomach are of rare occurrence. He says that he has watched many patients for years who have suffered from these attacks and found that all turned out to be cases of gall-stone disease, so that in persistent dyspepsia and heartburn the question of gall-stone disease should be considered.

Again, the quantity of the hemorrhage vomited does not always give us a clear idea of the extent of the stomach involvement. Blood may come from the ordinary peptic ulcer or from a minute erosion barely recognizable even upon close scrutiny; or it may proceed from weeping patches and villous areas to be recognized only after the stomach is opened. In some instances hemorrhage may be the first symptom of the destruction of tissue.

Undoubtedly some idea of the location of the ulcer can be formed by the time of the recurrence of pain after food is taken. Moynihan says that in his experience where exact observations have been made he has found a definite relationship between the time of the onset after a meal and the position of the ulcer in the stomach—the nearer the cardiac orifice of the stomach, the earlier is the onset of the pain. In prepyloric or pyloric ulcer it usually does not occur for one or two hours after the ingestion of food.

This is due, as Birmingham has shown, "to the fact that the stomach is not an empty sac to the bottom of which fluid falls, but a contractile muscular organ that fills in the cardiac end first and little by little passes the food onward through the pyloric antrum and pylorus into the duodenum. If the pain is relieved for a time by eating, it suggests a pyloric or duodenal ulcer, for after the ingestion of food the pyloric antrum and pylorus are closed and the ulcer therein is free from irritating contact with passing food. Another explanation for the relief afforded in these cases by eating is that the presence of food in the stomach excites the flow of bile into the duodenum which neutralizes the hyperacidity present.

I think then that we are justified by both the objective and subjective symptoms of the patient—her age, her history, the location and character of the pain, the analysis of the stomach contents, and the absence of other lesions which sometimes simulate gastric ulcer,—in making a diagnosis of gastric ulcer. The next and, so far as the patient is concerned, the most important step is the treatment.

Gastric ulcer in my opinion is a "border-land disease," essen-

tially medical at its beginning, unless urgent symptoms in the way of pain, hemorrhage or the signs of portending perforation prevail. I am thoroughly in harmony with the teachings of Bartlett and most internists regarding this point. I am, however, equally emphatic in my statement that unless the case in due time improves under properly regulated medical treatment, or if there be frequent recurrence of the hemorrhage, the condition transcends the domain of the internist and overlaps that of the surgeon. I cannot, however, quite agree with Bartlett in his statement that a cure will probably result in 95 per cent of the cases treated medically.

Bartlett asks the following pertinent questions: 1.—Do any of the cases relapse? 2.—Do secondary lesions follow cicatrization? He answers these questions by stating that "undoubtedly many cases do relapse and all recoveries are not complete, for some are only relative." Moreover he adds, "Unfortunately secondary lesions following cicatrizations are by no means uncommon, nevertheless it is our duty to give our patient the benefit of the chances from medical treatment." Of first importance he emphasizes *rest*, which must be absolute in character. Secondly, the relief of the stomach for at least six or seven days from all work and the substitution of rectal alimentation. At the end of this time small quantities of milk are administered every hour, gradually increasing the amount supplemented by rectal feeding until the end of the second week when the patient is permitted broths and bouillon in addition to the milk, and the intervals of feeding are considerably reduced. Moynihan advises that all ingesta be made sterile before taking into the stomach and is a thorough believer in the disinfection of the mouth by means of frequent antiseptic washes. The importance of this procedure is emphasized by the more recent experiments of Rosenow, who has many times produced ulcer of the stomach by intravenous injections of streptococci. It may be necessary to relieve the hyperchlorhydria with bicarbonate of soda or milk of magnesia. The pain may be so great even under complete rest that hypnotics become necessary. Under certain circumstances, as in dilatation associated with the ulcerative process, the use of the stomach tube may be advantageous.

The specific treatment is, according to my way of thinking, most important. Analyzing this patient's symptoms from the viewpoint of treatment in order to determine the indicated remedy we note first of all that she has "heartburn," which we have seen is due to the hyperchlorhydria, with eructations, anorexia and *severe burning pains* relieved by warmth. The pain extends from the stomach through to the back, which as we have seen is a

referred pain, and is most important from a diagnostic standpoint. There is hyperalgesia over the stomach area. The vomited matter is brown and almost black which, as we have seen, is due to the admixture of blood with the ingesta. She is losing flesh, the hemaglobin is low and there is marked anæmia. There is albumen in the urine and indicanuria, the skin of the face and chest is pigmented, there is marked thirst, the patient is restless, exceedingly nervous and melancholic, with fear of death. There is a peculiar pain felt in the neck and jaw, which as we have endeavored to show is also a "referred" pain. She has had upon two or three occasions tarry blood in the stools.

With this symptom complex presenting, I am inclined to believe that at least forty-nine out of fifty physicians trained in the law of similars would prescribe as the internal remedy arsenicum. The exhaustion, the weakness, the mental anguish and restlessness, the fear of death, the gastric irritability, the marked thirst with the desire for but little water at a time, the albumen in the urine, the relief of her symptoms from heat, the pigmentation of the skin, and the probable pathologic lesion present are all symptoms to be found under the pathogenesy of arsenic in all homœopathic materia medicas. But it is not necessary for me to confine myself to the exclusive literature of the homœopathic school in order to show that arsenic will produce the vast majority of the recorded symptoms when given to persons in health or in doses sufficiently large to create symptoms. Let me first quote from Potter: In his work on "Therapeutics, Materia Medica and Pharmacy," twelfth edition, under the caption of "Physiological Action," he says: "In large doses arsenic is a powerful irritant to the gastro-intestinal and bronchial mucous membranes. Toxic doses may produce either symptoms of gastro-enteritis or those of a profoundly narcotic character. In the first and most usual form of acute arsenical poisoning there is burning pain in the throat and stomach extending over the abdomen, vomiting, thirst, bloody stools, strangury, suppressed albuminous and bloody urine, rapid and feeble heart, great anxiety, cold breath and finally exhaustion and collapse. . . . The autopsy shows erosions, ecchymoses and softening of the gastro-intestinal mucous membrane. . . . In several cases it has caused general brown pigmentation of the skin and may give rise to the same pigmentation of psoriasis patches."

Strangely enough, under the caption of "Therapeutics" Potter says: "Arsenic is of special value in irritative dyspepsia, gastralgia, pyroses, gastric ulcer or cancer, and regurgitation of food without nausea." Again, "Anæmia and chlorosis are remarkably benefited by it. . . . In chronic, scaly and papular skin diseases its

value is very great. Epitheliomia may be retarded by small doses long continued, and it has certainly been useful in delaying the progress of other cancers, particularly scirrhus cancer of the stomach and uterine carcinoma."

But for fear that you may surmise that Potter, because of his early training as a homœopathic physician, filched some of his knowledge of Arsenic, both as regards its physiological action and therapeutic application, from homœopathic sources, let me quote some excerpts from Bartholow's chapter on Arsenic. Bartholow says: "When arsenic is taken internally in large doses it causes a metallic taste, nausea and vomiting of glairy mucous, epigastric pain and soreness, diarrhœa, tenesmus, and sometimes dysenteric stools. As regards the skin it causes itching of the eyelids, urticaria, eczema, psoriasis, etc. . . . When arsenic is swallowed in sufficient quantities to cause the symptoms of acute poisoning the phenomena produced are of two kinds—gastro-intestinal irritation and cerebral effects. . . . There is burning in the epigastrium and thence radiating over the abdomen; violent and uncontrollable vomiting; great dryness of the mouth and fauces; intense thirst; intestinal irritation; bloody and offensive stools; retracted abdomen, etc. After death there will be found in the gastro-intestinal mucous membrane deep redness, erosions, ecchymoses and softening."

Under the head of "Therapy" Bartholow further says: "There is no remedy more useful than arsenic in the so-called 'irritative dyspepsia' manifested by these symptoms: a red-pointed tongue, poor appetite, distress after meals, the presence of food causing intestinal pain, colic and the desire to go to stool. Drop-doses of Fowler's solution given before meals quickly relieve this state of things. . . . Arsenic is also very beneficial in these small doses in chronic ulcer of the stomach. It checks the vomiting, relieves the pain and improves the appetite for food. It is not equally effective in acute ulcer. Although arsenic exercises but little influence over the progress of these cases, it is very serviceable in cancer of the stomach, by diminishing the pain and checking the vomiting. Gastralgia and enteralgia, when idiopathic, are sometimes made to disappear in a very surprising manner by the same remedy, *but there are no certain indications of the kind of case to which it is best adapted. In the treatment of stomach disorders only small doses of Arsenic are admissible. Large doses by creating an irritation of the gastric mucous membrane will only defeat the end in view.*"

And so, gentlemen, I feel that I am able to prove to you the homœopathicity of arsenic in the disease under consideration, not only by Hahnemann's "Materia Medica Pura," the first volume of

which was published in 1811, but by the quotations extracted from recognized authorities of the older school, Potter and Bartholow. For further evidence obtainable from the older school I refer you to the more recent works of Bastedo, Thornton, Stevens and White, as well as to the older ones of Ringer and H. C. Wood. The peculiar modalities of arsenicum, the aggravations after midnight and from cold drinks or food, and the amelioration from heat, were obtained only by the finer homœopathic provings and aid the homœopathic physician in its selection. Its recommendation by Potter and Bartholow are, as we have seen, in a large measure empirical. I have selected it in the case under observation because in the provings of the drug we find that the majority of the symptoms present are produced by it when given to persons in health in small or moderate sized doses, and in toxic doses actual ulceration of the stomach can be induced. I have already shown that at least one prominent reflex symptom, that of the throat and jaw, is counterfeited in the provings of ammonium bromatum, but that is the only symptom present produced by ammonium bromatum, and therefore in the selection of the remedy, I have eliminated it. Sabadilla has a pain extending from the stomach to the back, but this is the only sabadilla symptom present and it is likewise eliminated.

Other remedies equally useful in gastric ulcer when indicated are argentum nitricum, phosphorus, mercurius corrosivus, kali bichromicum and hydrastis. The standard works on materia medica and therapeutics of the regular school show that all of these remedies not infrequently produce in physiological and toxicological doses symptoms resembling ulcer, and all of them are recommended in small doses for the same, though without the clear-cut indications to be found in the writings of the homœopathic school.

I shall therefore place our patient under complete rest. I shall carefully regulate her diet. I shall for a time resort to rectal alimentation, and I shall prescribe arsenic 3x (1-3000) internally every four hours. Should the specific remedy fail to relieve the pain, I shall not hesitate to resort to anodynes, or should it fail to relieve the hyperchlorhydria, I shall not hesitate to prescribe alkalies, for homœopathy in its philosophy is inclusive and not exclusive. Homœopathy is, however, oftener able to make these measures unnecessary by the properly selected internal remedy. In the meantime I shall keep the patient under close observation, and should urgent symptoms develop, I shall not hesitate speedily to open the abdomen and do a gastroenterostomy or resect the ulcer.

CONVULSIONS IN CHILDREN.

By Theodore A. Willis, B.S., M.D., Clear Lake, Iowa.

In presenting a paper on *convulsions* I realize that I am dealing not with a specific disease or pathological condition, but rather with a symptom of some such disease or condition; a symptom, in fact, common to most of the diseases of infancy and childhood. At the same time it is a symptom of such importance and productive of such anxiety on the part of the observers as to deserve individual attention and to require symptomatic treatment during its occurrence.

Dorland defines a convulsion as "a violent involuntary contraction or series of contractions of the voluntary muscles." In order to have a convulsion, then, we must have voluntary muscles that are capable of contraction; we must have intact nerve connections capable of transmitting impulses to these muscles; we must have the impulse to be transmitted; and finally we must have these functions occurring involuntarily.

When we consider the nervous systems of the body we find that there are in the central nervous system so-called nerve centers which serve as central exchanges between the afferent or sensory nerves and the efferent or motor nerves. Impulses are carried to these centers from every part of the periphery and from every organ of the body by the sensory nerves and the closely interwoven sympathetic filaments. The nerve centers transform the impulses into motor impulses which the efferent nerves carry to the muscles inducing the muscle contractions. Normally these afferent impulses are occurring constantly. The occurrence of muscle activity, however, depends not alone on the existence of afferent impulses, but these impulses must be of such a character and strength as to win the approval of a certain controlling part of the cortical center which exerts an inhibitory action over the motor centers. It is for this reason that our bodies are not in a state of incessant muscular activity.

In order to produce a voluntary contraction of a muscle, then, we have an impulse coming from somewhere, transmitted to the nerve center by the afferent neurons and from there to the muscles over the efferent neurons. A convulsive contraction is simply an exaggeration of the voluntary, the nerve center discharging the impulse with excessive violence due either to an over-stimulation from the afferent neuron, to a hyper-excitability of the nerve center itself, or to under-inhibition by the controlling center. Moreover we find that in the infant and young child the nervous system is normally in a state of more or less exalted

excitability, also that at this age the inhibitory center is in a rudimentary or undeveloped stage. Therefore we must expect an easy convulsibility at this age.

Diagrammatically we may represent the physiology of a convulsion in this way: Let (N) represent the nerve center. Here we have the impulse (I) coming over the sensory nerve from *somewhere*. Here the controlling center (C), and here the motor neuron reaching to the muscles, (M).

Now let *somewhere* be *anywhere*. For instance an erupting tooth, an irritable stomach or a rectum full of worms, sending a constant succession of complaints to the nerve centers. The undeveloped inhibitory center of infancy loses its control and there are a series of motor impulses discharged with excessive violence, resulting in a series of violent involuntary contractions of the voluntary muscles.

Second, let (C) be the inhibitory part of a cortical nerve center, rendering the motor centers more stable and less liable to part with their energy. Now imagine an increased cerebral pressure due to a febrile hyperemia, hydrocephalus, or intra-cranial inflammatory condition. There is an interference with the inhibitory function of the center, and we find the normal afferent impulses resulting in convulsive responses.

Third, let (N) be a nerve center in an over-excitable condition due to defective nutrition, toxemic conditions, or to an organic disease, and once more we find the normal afferent impulses discharged with explosive force, especially so if the end plates and muscles are likewise in an irritable condition.

A convulsion is not apt to be mistaken for anything else, especially in the infant or young child, where the art of malingering is inexpert. In the older patient the dilated pupils, the absence of the reflexes, the incoördinated movements and the history of the case are diagnostic.

The diagnosis is of little value, however, until we have ascertained the underlying or causative condition. Nor can we sooner institute more than an intelligent palliative treatment. We must know whether a convulsion is idiopathic or symptomatic; a reflex irritation or an organic central lesion; a toxemic eclampsia or an eclampsia of malnutrition.

Statistics tell us that convulsions in infancy are more apt to be idiopathic, due to cerebral pressure or to gastric or dental irritation; in childhood meningitic, febrile or traumatic; and later epileptic. Thus the age of the patient may be of aid in our search for the causative factor, as will a complete history of the case, in other words, the old reliable totality of symptoms which

is the beginning and the end of all intelligent diagnosis and treatment.

For the safety of the patient, as well as for the peace of mind of the attendants, there must be prompt protection and palliation of the seizure, and while we are delving into the origin of the case we can do a great deal with this object in view. Thus a high temperature will often respond to hydro-therapeutic measures such as cool packs, sponges, and baths. A cerebral hyperemia can be reduced by immersion in a warm bath with cool applications to the head or by the use of various depressant drugs. Trousseau recommends compression of one or both of the carotids opposite the thyroid cartilage in all cases of eclampsia until the attack is relieved. When the face becomes cyanotic the pressure is released, to be repeated in 15 to 30 minutes if necessary.

Many sources of reflex irritation may be immediately identified and relieved. I once brought to an abrupt termination a severe and rapid succession of convulsions by relieving a complaining stomach of a pint or more of plums—skins, stones, and all by the apomorphia route. The same agent has as quickly cleared up for me two cases of malingering. One a young man several "sheets in the wind" who had informed his lady love that her disdain had driven him to take poison; and the other a school girl who was apt to have "fits" when disciplined. The latter I think is a permanent cure.

The greater number of convulsions must depend for their curative treatment entirely upon the intervals between attacks, and here we must use every effort and every available aid in getting at the very bottom of the case, for we can expect but little success until we do. If there is a toxemia we must hunt for its source rather than depend upon any system of gut scraping and kidney flushing for its palliation. If there is malnutrition we must know whether the fault lies in the food supply, the digestion, the absorption or the assimilation.

A number of the conditions responsible for convulsions are peculiar in that they are not apt to get better "in spite of the treatment" as so many things do, and only through a thorough understanding of the case can we hope to restore the patient to perfect health, and until we acquire such an understanding we are doomed to failure and disappointment.

In summary I submit that a convulsion is really no more than a manifestation common to various disturbances. That it is more apt to occur in extreme youth, owing to the normally exalted nervous excitability and lack of inhibitory control at this age. And that though the severity of a seizure may require special alleviation, the intelligent curative treatment implies the

discovery and intelligent treatment of the basic condition upon which the convulsion depends for its existence and which may be found under practically any subject in a complete and unexpurgated pathology.

SIR ARBUTHNOT LANE
THE MAN AND HIS METHODS.

By Horace Packard, M.D., of Boston.
Professor of Surgery, Boston University.

In the London Congress of Surgeons, of 1914, the most talked about man has been Sir Arbuthnot Lane. His clinics have been crowded to repletion and hundreds turned away. He has given of his time and energy unreservedly for the entertainment and edification of his American confrères. Now that the Congress is over one may make a dispassionate review of all that has occurred. Of the thousands of operations which have been laid before the eyes of American surgeons, none can compare in originality, boldness and masterly technique with Lane's operative methods for cleft palate and hare-lip; his method of repairing fractures by the aid of steel plates; and his treatment of intestinal stasis by removal of the colon. It will be observed that his original work has touched upon three departments of surgery,—nose and throat; orthopedics; and abdominal surgery. Before proceeding to an analysis of his methods, let us look at the man. He is far removed from our ideal of the English type. His slightly stooping shoulders tell of years of intense work over the operating table and at his desk; his spare figure and clear face and features and keen, piercing eyes, of abstemious habits; and he exhibits a poise and swing and directness of execution which suggest the strength and endurance of an athlete. He has been criticized and maligned, as all pioneers are, but he is a master of repartee and retaliates in the most caustic and biting sarcasm. His departures from the conventional have been of such a startling character that the surgical world has been, and is slow, and very properly so, in accepting them.

The Lane Operation for Cleft Palate:—In the management of cleft palate and hare-lip cases he boldly sweeps away all previously accepted doctrines and operates on the newborn at once. At the Great Ormond Street Hospital for Sick Children, where he is Senior Surgeon, his opportunities and influence are very great. Therefore he has had ample material upon which to work out his hypotheses. Every hare lip and cleft palate case which appears in his service is operated on at once, no matter how soon

after birth. He reports one case done within one hour after delivery. He argues that the operation *per se* is no more dangerous at this early period of the child's life than later, and the advantages are that early operation forestalls changes which are otherwise sure to follow and which embarrass later attempts at repair. Thus, early operation does away entirely with the premaxilliary bone problem (he never touches it—it takes care of itself). Early closure of the palate diverts the column of respiratory air through the nasal chambers, upon which he claims their normal development and functional efficiency largely depend. The main features of his technic are that he takes away no tissue and the repair is effected by flaps. For cleft palate a muco-periosteal flap is raised which lays bare the alveola even to the buccal mucous membrane. The temporary teeth are thereby sacrificed, but the permanent teeth are unaffected. The last, but crowning virtue, is less defective speech and articulation than after any other method. Quite an impressive incident of one of the clinics was a demonstration by an expert in voice culture of a group of Lane cleft palate cases which had developed into fine, shapely-faced children exhibiting scarcely a deviation from the normal in articulate speech. He very emphatically stated that in his experience better results follow the Lane method than any other known to him.

Plating fractures:—Sir Arbuthnot's original work in the treatment of fractures with steel plates is no less startling in its departure from conventional lines. It is, however, now so widely known throughout the surgical world that but the briefest reference to it is necessary. It may be recalled that at its inception it was met by the most strenuous opposition and ridicule. It has, however, steadily made its way until now nearly all surgeons are plating some, at least, of their fractures. It is an inexpressible privilege to see the technic of the master. Taking as an example, fracture of the femur, a single stroke of the knife opens a hole in the outer side of the thigh a foot long or more. The shaft is quickly exposed for five or six inches each side of the point of fracture and the ends turned out. Not a finger, even though the hands be gloved, touches any part of the wound throughout the operation, and nothing touched or handled by the operator, assistants or nurses is allowed to enter it. This is all made possible by special instruments devised by Sir Arbuthnot; not a ligature or suture is placed in the wound. For the femur, a plate about eight inches long is employed and fixed in place by at least six screws. By a twist and a turn, overlapping fragments are deftly "set" in perfect alignment and the plate laid on and screwed down. No splints are used in child patients—they are allowed to move

the limb about as they please and to assume any attitude. In adults a splint is applied, not because needed, but "because the patient thinks he ought to have one."

Intestinal Stasis and Colectomy. The most startling departure of modern surgery is Sir Arbuthnot's proposal to remove the colon for the cure of constipation and its sequelæ. This seems such an extreme measure that one can hardly entertain the thought that the proposition is other than a joke or an hallucination. To get a deeper insight to Sir Arbuthnot's philosophy, we must ask what are "the sequelæ of constipation." He tells us that the colon in man's present state has become a cesspool where decomposing matter stagnates and absorption of bacteria and ptomains to an extent heretofore undreamed goes on. What are the diseases which are produced and perpetuated by this state of intestinal stasis and absorption? He gives us this formidable list—*tuberculosis* in any part of the body; *goitre; rheumatic arthritis; cervical adenitis; Addison's disease; Raynard's disease,* and a host of nameless conditions of ill-health and inefficiency. The convincing thing about it all is that he shows cases in his clinic which have been changed from apparently hopeless conditions to blooming health.

The attitude of the British medical profession toward this field of Lane's work is, at the present time, of hesitating acceptance. It is almost universally acknowledged that there is truth in his teachings and value, in a limited number of well-defined cases, in colectomy for the relief of intestinal stasis. Some of the bolder of the English surgeons are working on the lines laid down by Lane, and undoubtedly the recent congress attended by over 1400 American surgeons will give great impetus to this work in the United States and Canada. We are likely, therefore, to know in the near future whether other surgeons secure the same amazing results claimed by the originator of this startling departure in surgery.

Not the least among the interesting features of Lane's clinics, in the congress just closed, have been the terse, clear-cut, running comments as suggested by various events, details and questions during his operations. Here are some of them:—

"Plating fractures in the hands of my colleagues fails because they don't know how to do it." "If they put them in dirty they are bound to come out; if they are put in clean they will stay in."

Speaking of specialists: "The more they develop of special sense the less they have of *common sense.*" "We have lost our *common sense. Common sense* is what we need."

"We must get at the *cause* of things."

"The physician is like the parson: he is governed by creed. The physician's box of tricks (his medicines) is all rubbish. His little doses of poisons are no good. We must clean up the food supply."

"I am telling you what I think: you can form your own conclusions—that's *your* job."

"The way to do an operation is to buy a lot of instruments. In this cleft palate operation I use four. The lay-out of a colleague of mine covers the whole instrument table."

"The colon is the cesspool of the human body. My distinguished colleagues do everything but the right thing for their cases of intestinal stasis. They pour down cathartics, they pump up enemata, all to no purpose as far as real cure is concerned. Here is a case which has had everything possible done but the right thing—ovaries removed, appendectomy, hysterectomy, gastroenterostomy and everything else under the sun has been taken out but the right thing. Removal of the colon has cured her, and she stays cured."

"These tuberculosis sanataria are rubbish from start to finish;—just a popular craze."

"This operation (colectomy) is as simple as anything can be—any fool can do it." "It is the most simple operation in the world if you just know how to do it. Nothing could be more pathetic than the way this thing (the protruding colon) is asking to come out."

"We'll give this case as much rectum as justifiable—which is as little as possible."

"You imagine you want a lot of small intestine. It's all nonsense. You can do very well with a couple of feet of it."

(Speaking of veils, bands and membranes.) "The anatomist—who knows nothing about surgery—calls these things bands and congenital adhesions. Children *ought* to be born with them if they are congenital—*but they are not.*"

"I find everybody is modifying this operation (colectomy.) They are doing it the way I did it thirteen or fourteen years ago. That's the way they modify it. I've tried all these things."

"I don't know anything about shock from pulling on the mesentery. I pull on the mesentery all I want to. It's all right as long as you keep pumping in salt water. Keep pumping in salt water and you need have no fear of shock."

"Go to woman if you want to learn to sew. If we invent a stitch we call it after somebody's name. It doesn't do any harm and it pleases people—but the women have known about it all along."

"Somebody has attached my name to a certain kink of the

ileum. I don't know why they did it—I didn't ask to have my name tagged on to it."

"The biggest fool thing is to do a gastroenterostomy for ulcer—unless you've got mechanical obstruction."

Conclusion:—What place in the future annals of surgery Sir Arbuthnot Lane's work will hold is difficult to prophesy, but it is no exaggeration to say that he is a man of great originality of thought and tenacity of purpose, even under scathing criticism, ingenious in the design of new instruments and a clever operator,—*a master surgeon.*

CLINICAL DEPARTMENT.

Conducted by Arthur H. Ring, M.D.

Case 11-E. Diagnosis:—Filariasis. *

A male negro, aged 28, entered the hospital on the surgical service, February 23, 1914. In the left groin was an elongated flaccid mass, which seemed reducible, and was diagnosed as an inguinal hernia. The urine, when sent to the laboratory, was of the appearance of fairly rich milk. Examination showed: Sp. gr. 1.022, reaction alkaline, no perceptible odor; large trace of albumen; no sugar or acetone. Microscopically, the sediment appeared to be made up chiefly of fine granules of fat; no globules were found. There were many renal cells and several leucocytes. When shaken with ether and potassium hydroxide solution, the urine became materially clearer. When a 1 per cent osinic acid solution was added, the urine gradually became darker, finally acquiring a black color. These tests demonstrated the presence of fat, which a Babcock test showed to be present to the amount of approximately 3 per cent.

About noon on the following day, the patient passed several ounces of clear urine. The color was normal, reaction alkaline, sp. gr. 1.017. A decided trace of albumen was present; no sugar or acetone; indican normal. In the sediment were found several uric acid crystals, leucocytes, red blood discs, renal cells, and a few finely granular casts. In the slightly bloody chylous urine passed later in the day, several filariæ nocturnæ were found.

Such an unusual condition naturally called for further investigation. Under the direction of Dr. Watters, several drops of blood were taken from the patient's ear at 10 p.m., and protected by a cover-glass to prevent drying. Immediate examination of the smears showed filariæ nocturnæ in great abundance.

A blood count was made, and shows a considerable secondary anæmia and slight eosinophilia:

Hemoglobin 55 per cent.

* I am indebted to Mr. W. Overholser of the Junior Class Medical School for this interesting case.

Red discs 3,200,000.
Leucocytes 6,400.
Lymphocytes 12 per cent.
Neutrophiles 84 per cent.
Eosinophiles 4 per cent.

A Pirquet test for tuberculosis gave a suspicious result. The Wassermann reaction was negative.

The main points in the patient's history are as follows: He was born in the Barbadoes, and lived there until he was 19 years old. Since then he has spent most of his time in the United States, travelling about in pursuit of his occupation, that of waiter. He has not been South since 1912. About six months ago he suddenly began to pass milky urine; no previous attacks have been noticed. The attack was not preceded by any trauma, nor were there any systemic disturbance. After lying down a day or two, the urine, he says, becomes clear, but the condition of chyluria returns as soon as the patient resumes an active life. There is no pain or retention of urine.

A brief summary of the etiology of chyluria may be of interest. The filuria baucrofti is a species of nematode worm, the favorite seat of which is the thoracic duct. The embryos (or microfilariæ), the filariæ nocturnæ, commonly but incorrectly called the filariæ sauguiuis hominis, form in the lymph, and reach the blood stream through the thoracic duct. The name nocturna is applied to this species because normally the microfilariæ are found in the blood only at night. Cabot (Animal Parasites, p. 546) attributes this phenomenon to the fact that during sleep the peripheral vessels are dilated, permitting the entrance of the embryos. Manson says that the appearance of the embryos in the blood is simultaneous with the swarming of the mosquitoes which carry the embryos. During the daytime, the microfilariæ accumulate in the lungs and the large blood vessels of the thorax. The habits of the embryos are reversed if the patient sleeps during the day and is up at night.

The intermediate hosts of these parasites are several species of mosquitoes. Filariasis is found almost solely in the tropics, where it is very common; it is said that in Samoa, for instance, 50 per cent of the population suffer from this disease.

Chyluria is a very common manifestation of an infection by the filaria bancrofti. The condition appears suddenly, and may last a few days or for years. After a time the urine becomes normal again of its own accord. Usually the morning urine is clear, but the clear urine may be passed in the afternoon instead. The condition is debilitating, but seldom fatal. Occasionally retention occurs on account of coagulation of the albumen present in the urine within the bladder.

The pathology of the condition is usually explained thus: The parent worm obstructs the thoracic duct, so that a stasis of lymph and chyle occurs in the duct and its tributaries below the obstruction. The resulting rise of pressure causes the stream to follow the line of least resistance, that is, towards the anastomosis of the duct system with the lymphatic system of the upper part of the body. The course is through the pelvic, inguinal and upper femoral, scrotal, abdominal, and thoracic lymphatics; a varix may be formed anywhere in this pathway. If rupture of a vessel takes place in the kidney or bladder, the result is chyluria. The inguinal lymphatics may be so swollen as to simulate inguinal hernia. Once the duct is obstructed, it makes no difference whether the parent worm lives or dies; the obstruction remains.

A person suffering from filariasis should avoid blows and other injuries, as these may cause the parent worm to abort. In such a case, the embryos are born without the usual protecting sheath, so that serious consequences may ensue. It is more than possible that the administration of such a drug as Neosalvarsan might cause a similar condition.

The treatment on which most authorities are agreed consists in rest in bed with the pelvis elevated, practical elimination of fats from the diet, decreased intake of fluids, and enemas. The value of drugs is problematical. This treatment has been followed for many years, and is said to be effective in at least temporarily causing a cessation of the chyluria.

In view of the foregoing remarks, the subsequent history of the case is interesting. The patient was operated on March 6, 1914. The report of the operation follows: "The usual incision was made on the left side for inguinal hernia. t was found on coming down to the inguinal ring that the canal was occupied by a thickened mass that resembled very much a cyst. This mass was made up of a number of small cysts, each being filled with a milky fluid. The mass was dissected away from the cord and was found not to be connected with the abdominal cavity except by a lymphatic duct. There was no opening found into the abdominal cavity; therefore, there had not been a hernia, but this mass of lymphatics with accumulated fluid simulated a hernial sac. The wound was closed in the usual manner, after the Bassini method, using Pagenstecher for suture material and No. 2 catgut in skin, with silk-worm gut drain between the layers. Microscopic examination of the tissue removed showed a lymphangiectasis.

On the day after the operation, the foot of the patient's bed was elevated 8 inches, and was left so (except at night) during his convalescence (eleven days). The urine passed while the patient remained in bed was clear, and, except for the presence of a slight

trace of albumen and some red blood discs, was normal. Filariæ were found in the patient's blood during his convalescence (as early as 2 p.m.) and also soon after his discharge from the hospital. The diet was the one usual after the herniotomy operation. As soon as the patient began to walk around at all, the condition of chyluria returned, so that the treatment (while consisting solely in rest in bed with the pelvis elevated) cannot be said to have been successful.

The patient was last seen five months after his discharge from the hospital, and reported at that time that for several months his urine has been clear. A urinalysis reveals no abnormality.

This case presents several points of interest. First of all, it is an instance of a tropical disease occurring in a temperate climate. The infection was probably acquired in the Barbadoes, and either remained latent or else manifested itself unnoticed by the patient. In the second place, the enlarged inguinal lymphatics so accurately simulated an inguinal hernia that, before the operation, the correctness of the diagnosis of hernia was not for an instant doubted. It is more likely that the mass in the groin had gradually gained in size than that, according to the patient's statement, it had been suddenly acquired (by heavy lifting) six years ago. In view of the history as given and the physical examination, the error in the diagnosis was quite pardonable. Lastly, this case displayed the spontaneous recovery usual in such conditions. How long this freedom from chyluria will last is hard to say; it is more than likely that it is only temporary.

Class of 1914 Boston University School of Medicine.

Members of the 1914 graduating class have located as follows:

Adamian, H. G.,	111 Thornton St., Revere, Mass.
Alexander, K. L.,	Orange, Mass. (R.F.D. & Box 61).
Clement, S. A.,	Massachusetts Homœopathic Hospital, Boston.
Cottrell, S. S.,	678 Chamberlayne Ave., Richmond, Virginia.
Daniels, L. R.,	246 Central Ave., Pawtucket, R. I.
Dillenback, E. U.,	Beverly, Mass.
Jones, Frank L.	Emerson Hospital, Jamaica Plain, Mass.
Kinsley, W. G.,	Homœopathic Hospital, Reading, Pa.
Lee, Edwin D.,	Massachusetts Homœopathic Hospital, Boston.
Mathewson, F. W.,	West Dept., Massachusetts Homœopathic Hospital, Brighton, Mass.
O'Sullivan, T. J.,	Trull Hospital, Biddeford, Maine.
Parris, R. O.,	77 Lanark Road, Brookline, Mass.
Reed, Grace D.,	Wellesley Nervine, Wellesley, Mass.
Rodger, J. Y.,	Lowell General Hospital, Lowell, Mass.
Salvin, Louis,	
Sewall, C. W.,	Massachusetts Homœopathic Hospital, Boston.
Todd, Helen B.,	State Hospital, Norwich, Conn.
Trimmer, Leila V.,	Massachusetts Homœopathic Hospital, Boston.
Walker, R. I.,	New Bedford, Mass.
Worcester, G. F.,	Newburyport, Mass.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager. 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors.

Reprints furnished at cost.

FEDERAL LICENSURE AGAIN.

That State medical licensure, and the limited State reciprocity resulting therefrom, is unsatisfactory to the profession at large, is evidenced by the frequently suggested plans of "cure," which are offered by medical societies and journals.

"Medical Council" of September, 1914, contained a lengthy editorial entitled "How Federal Licensure may be brought about." The editorial closes with a draft of a proposed bill which the editor modestly explains is merely suggestive, and that many questions of practical administration would have to be worked out. We think it wise to present this suggested bill for the consideration of our readers, particularly as the "Council" will have a further and more extended notice of this subject in its November issue.

A BILL

To extend the functions of the United States Public Health Service and to create a new grade of non-commissioned officers to be known as Sanitary Inspectors.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That the Secretary of the Treasury be, and he hereby is, authorized to direct the Surgeon General of the United States Public Health Service to create a grade of non-commissioned officers to be known as Sanitary Inspectors.

Appointments to this grade shall be made whenever applicants who are citizens of the United States and of determined reputable character satisfy the examining board of the Public Health Service that they conform to the academic and medical standards agreed to by the Federation of State Medical Boards of the United States, this to be proven by examination, or by certificate of qualification and license as a physician and surgeon by one of the several existent Boards of the Federation, or previously constituted State Board, the standards of which are acceptable to the United States Public Health Service, and by such other additional tests upon the science and art of preventive medicine as may be deemed necessary by the examining board of the Public Health Service to determine the fitness of the

applicant to act as a Sanitary Inspector under the regulations to be made by the Public Health Service.

Women shall be entitled to the grade on the same basis as men.

Physical examination of applicants shall be waived by the Service whenever in its judgment it is proper to do so in making appointments to this grade.

Successful applicants shall receive the usual credentials of a non-commissioned officer of the Service and shall be assigned to the State of their choice, certification being made to the Secretaries of the Medical Examining Board and the Board of Health of the State that the person is a Sanitary Inspector of the United States Public Health Service detailed to service within the State without pay, except when specifically requested by the Public Health Service or the Health Authorities of the State, when they will receive a *per diem* from the authorities calling upon them.

Sanitary Inspectors shall, upon application, be certified to an additional State of their choice or to which they may remove; but in any event they shall be subject to the medical and sanitary laws and regulations of the State of residence.

In case of war, insurrection, pestilence or public danger Sanitary Inspectors must respond to orders from the Public Health Service assigning them to duty under any jurisdiction; but upon application, they shall be relieved from such special duty if physically or by reason of sex, age or disease they are incapacitated for field service.

Sanitary Inspectors shall be allowed to engage in private medical practice, but if they abandon medical practice as their main occupation or pursuit they must show cause why their credentials should not be recalled.

Conduct detrimental to the service or in violation of the civil laws shall, upon conviction, subject Sanitary Inspectors to loss of their credentials.

Every Sanitary Inspector shall, upon request, render such reports to the Service as shall be demanded of him.

Sanitary Inspectors shall not be entitled to pensions except for disabilities incurred in the military service of the United States and under the ordinary rules and regulations of such service and while under army or navy command.

The grade of Sanitary Inspector shall not interfere with any other medical or surgical credential granted by any State as under its laws.

Upon the completion of special prescribed courses of instruction, distinguished service, scientific research, original discovery in medicine, sanitation or surgery, or notable authorship, Sanitary Inspectors may become eligible to such honors or promotion as the Public Health Service may elect; but for no other reasons may they be so promoted or specifically honored.

[Additional paragraphs providing for repeal of any federal law antagonistic, making any necessary appropriation, providing penalties for violations, etc., and authorizing proper regulations for carrying into effect.]

At the last meeting of the Federation of the State Medical Boards of the United States, this subject was discussed under a paper written by Lieutenant Col. J. R. Kean, notice of which appeared in the *New England Medical Gazette* for January, 1914. "The Journal of the American Medical Association" also has a lengthy editorial entitled "A National Standard Requirement for Medical Practice," under the date of September 12.

It will be seen that the remedy proposed by the writers quoted for the now many unsatisfactory State standards for medical practice, is that the Departments of the Army and Navy should be endowed with the real power of granting licenses for medical

practice, and that the various State licensing boards should remain in existence just the same as at present, only, as the "Council" says, "Let the States stick to their prerogatives and under their police powers give a free hand to their medical boards to do this work and exact certain minimum requirements of all sorts and conditions of practitioners of the healing art."

The Journal of the American Medical Association puts it this way: "If, therefore, the President of the United States should appoint a board for the examination of officers for the Medical Reserve Corps of a composition which would insure a high standard of requirement, and the State boards would agree to recognize without examination the holders of Reserve Corps commissions—as the States named above already recognize medical officers of the government services—the thing would be accomplished. If the laws of any State do not at present permit such recognition it would not be difficult to obtain the necessary legislation."

The idea of all these various sponsers for a Federal Examining Board is, to utilize the machinery which the Government already has at hand, rather than wait for or risk the chance of the Government creating a national examining board, which would likely require some constitutional adjustment.

Now all of this may look well on the surface, and while we have from the start favored a uniform medical standard of requirement for all practitioners of medicine, either in the form of a general reciprocity or a National Examining and Licensing Board, yet with the present hostile attitude of the Army and Navy Departments towards the homœopathic physician, we do not become exactly perspiringly enthusiastic for the change. "The Medical Council" says: "It is unthinkable that the Federal Government would discriminate for or against any so-called sect in medicine any more than it would in religion. Federal licensure would be purely upon a basis of attainment."

It may be unthinkable for the Federal Government to so discriminate, but is has not in the past been either unthinkable or "undo-able" for the examiners of the Army and Navy Medical Reserve Corps to so manipulate their appointments that scarcely a homœopathic graduate appears in the Corps.

When this Department can demonstrate to the entire satisfaction of the homœopathic profession of the United States that it carries out in *spirit* as well as in *letter*, the oft repeated phrase "that no physician is ever debarred from entering the Army or Navy because he is a Homœopath," then we shall look with more confidence, and give a more ready assent to the propostion looking toward a licensing and examining board made up of members of the Army and Navy Department.

ABSTRACT FROM THE DIARY OF DR. J. EMMONS BRIGGS.

Written in London.

Wednesday, July 29, 1914.

Austria declared war on Servia.

Thursday, July 30, 1914.

Quiet in London. I attended meetings of the Clinical Congress of Surgeons all day. In the evening, we visited Parliament with Sir George T——. He told us of the crisis pending.

Friday evening, July 31.

The news of the German declaration of war with Russia was proclaimed in the English press. This news was received with great apprehension, as it was thought that England would be brought into the struggle. The newspapers are filled with war news and excitement is intense. Germany is mobilizing. All German trans-atlantic steamships are withdrawn.

Saturday, August 1.

A day of great excitement in London! Germany has declared war on Russia. The money stringency is now marked. Exchange has reached ten per cent. We took dinner at the Grand Hotel and a five-pound English note could not be passed,—no money is available for change. Military law in Germany and France has resulted in a great influx of tourists from the continent. The American embassy is crowded by Americans securing passports.

The king and queen appear twice daily upon the balcony, amid shouts and cheers from the people. The deepest gloom has spread over England.

During the evening, several physicians and their families attended a dinner at the Trocadero given by Dr. E. Petrie Hoyle. Returning from this dinner, we found ourselves in the midst of street scenes of the wildest excitement. Immense crowds were assembled everywhere, roused by the rumor which had become current at 11 p. m. that England had declared war on Germany.

Black Sunday, August 2.

Intense excitement prevails in London. Crowds of people gather at all public squares and Trafalgar Square is crowded. The Royal Palace grounds are thronged by an anxious populace.

The rumor of last evening that England had declared war upon Germany proved to be false and today tension is somewhat less, but the impression is prevalent that England cannot keep out of the struggle and that war may be declared at any moment.

I do not consider the possession of a return ticket an evidence that we are to sail for home. Scheduled sailings are cancelled daily; orders from the Admiralty prevent the sailing of

steamships even when loaded with passengers and about to put to sea. The Cunard office gives no assurance but sells tickets subject to the sailing of its boats.

The management of the Hotel Cecil is most considerate, extending credit to all Americans and allowing them to charge all hotel expenses to their room number. The distressing news has just reached us that the financial crisis has compelled the Bank of England to extend the Bank Holiday for another twenty-four hours. About 800 Americans are at the Hotel Cecil, all with pockets filled with paper, but unable to secure any cash. A few trains are running, but with no regard for schedule.

Monday, August 3 (Bank Holiday).

Banks are closed; no money can be obtained. Nearly all Americans are short of cash; no paper is honored. A thousand dollars' worth of paper will not get a dinner at a restaurant. Five nations are at war. Refugees are arriving from Germany and Paris with extraordinary tales of loss of property, confiscation of automobiles and baggage. Many Americans have been compelled to leave all baggage in Germany and have arrived with only the clothes on their backs. Distressing experiences are related of men, women and children being obliged to stand crowded into cars and boats without food for 36 hours. This morning I spent in an attempt to secure home sailings and finally secured two tickets on the Franconia for August 18. To hold them, I was compelled to advance ten pounds in cash, for which they would accept only English money.

Thousands of people throng the offices of the steamship lines and are unable to secure sailings. Fabulous premiums are offered. One American offered $1000 for steerage accommodations.

At 4.30 p. m., a mass meeting of Americans was held at the Waldorf Hotel to form an organization for the relief of American citizens. At 3 o'clock the large ballroom of the hotel was packed to overflowing, and long before the appointed hour, the large central lounge was also crowded. Speeches were made by many prominent Americans; statesmen, bankers and business men.

A committee was appointed to have charge of the relief work. The lower floor of the Hotel Savoy was leased by this committee and bureaus were immediately established. (The American Relief Association soon became the center for information for all stranded Americans and every American in London was invited to register. Here were to be found departments for information regarding transportation to America, for tracing baggage lost upon the continent, a sub-office of the American Embassy for issuing passports, a banking department where loans were made to those without funds.)

Cable messages have been sent by the American embassy to the United States Government, requesting transports.

Tuesday, August 4.

Bank Holiday has been extended three days, August 4, 5 and 6, and no money can be obtained through any banking house. Letters of credit are therefore useless. At 9 a. m. I joined the line before the office of the American Express Co. and at 12 o'clock reached the cashier's window. Over one thousand Americans were in line. The company would pay $50, $10 in gold.

A young woman standing in line, related her experience as follows:

She was in Germany, where she had been studying music for five years. All she had in the world was with her in five trunks. In her escape, her baggage was held at the frontier. Her letter of credit, which she carried in a handbag, was lost and she has now only a single shilling remaining and an American Express order for $10.

In the afternoon, I visited the steamship offices, which were filled with anxious crowds, and finally I secured an endorsement on my Hamburg-American ticket, calling for payment in New York.

This evening at 5 o'clock, the papers declare, England's ultimatum sent to Germany expires at midnight. This ultimatum demands the neutrality of Belgium, which is already invaded by German troops.

At 11 p. m., August 4, war was declared by Great Britain against Germany and at 12.15 a.m., August 5, the news was given out from the Foreign Office. From midnight to daylight, the streets were thronged with immense crowds, inflamed to extreme excitement. Shouting was continually heard. A night of wild excitement!

August 5.

Frequent bulletins are issued by all newspapers, with rumors of a naval battle. The price of meals has been increased at our hotel, sixpence for breakfast, one shilling for luncheon and one shilling for dinner. The management of the Great Eastern R.R., appreciative of the patronage which this railroad had received from Americans in the past, determined to assist them during the money crisis and posted notices in several hotels, offering to cash American Express Co. checks for a limited amount. The morning following the posting of these notices, a line one-eighth of a mile in length formed in front of the railroad station and fifty dollars in gold was paid upon presentation of checks.

Refugees are still pouring in from France and Germany,

some able to escape with only the clothing they are wearing; families are divided, separated in the great agitation.

One particularly distressing case was related of a mother who had lost her two children, aged five and seven years. She had been obliged to abandon all her baggage in Paris except a hand-bag. With her children, she was forcing her way along the platform to board a train for Calais. Her children became separated from her and as the train was about to start, she was informed by a bystander that the two children had been put on board the train in the compartment ahead of the one she was compelled to enter. When the train stopped, her children were nowhere to be found.

August 6.

The price of foods has been advanced in all hotels and restaurants. In the evening we went in a taxicab to see the crowds in front of Buckingham Palace. We waited an hour, but the king and queen did not appear. Belgium is making an heroic defense at Liége and has held the German army in check.

August 7.

Gold can now be obtained and American Express Co. checks can be cashed at the hotels. Americans are feeling much better. The expected run on the Bank of England did not materialize.

At the Waterloo Station, only a few trains are running. The war has disarranged all schedules, and passenger and express trains are subservient to the transportation of troops and munitions of war.

My room at the Hotel Cecil overlooks the Thames Embankment, a wide thoroughfare, on the left bank of that river and parallel with the Strand and Fleet Street. As these last-mentioned streets are crowded with traffic both day and night, the Embankment offers the best avenue for the transit of troops from the west to the east end of London. All night long, military music and the tramp, tramp, tramp of the troops can be heard, and sleep is well-nigh impossible.

Saturday, August 8.

There is little news today. Lists of victims of the "Amphion" are published in the daily papers. I went to Brown, Shipley & Co. and found that they will pay only $10 on my letter of credit.

Sunday, August 9.

Quiet in London. Much war news is published of a decisive French victory; 19,000 German loss and 7,000 French. As this appears upon the street bulletins, we look upon it with incredulity.

Monday, August 10.

Reports of battles of yesterday with great losses are not substantiated in the morning press. The German navy are within

their defenses. The sea is open to England but closed to Germany. Reports are rife of English steamships being chased by German cruisers in the North Atlantic. Such rumors do not deter Americans from attempting to secure passage upon English merchant ships. The taking off of the Cunard S.S. "Aquitania" has caused a tremendous rush to the Cunard office for rebooking. The crowd extends a long distance on the sidewalk.

Tuesday, August 11.

I spent the morning at the Cunard office and Brown, Shipley & Co. No war news of importance.

Mobilization has been accomplished with great expedition. Agents were sent throughout the country requisitioning horses for the army. The government took over all the railroads for military purposes. Trains were loaded with troops and long freight trains, packed with horses and munitions of war, congested the railroads of England until the expeditionary army was loaded upon transports. The withdrawal of passenger trains and the taking of horses from coaches in rural England, has closed all avenues for sight-seeing.

Immediately following the declaration of war between England and Germany, the war department established the most rigid censorship of the Press. Authentic military news was difficult to procure. During the mobilization of troops, the newspapers were silent regarding the distribution of the army. Troop trains were continually leaving the railroad stations of London, bound to points unknown. Not until the expeditionary force was safely landed upon the continent did London know the destination of her army.

August 12.

Following the declaration of war, a tremendous exodus of foreign waiters in the various hotels and cafes of London occurred. Most of the large hotels lost from one-half to three-fourths of their employees, chiefly Franch and German waiters, who returned to enlist in the defense of their country. In many instances, a temporary closure of hotels was necessary.

Friday, August 14.

No war news except the entrance of the "Goeblin" and "Breslau" into the Dardanelles, where they have been taken over by the British government.

Saturday, August 15.

We took train for Oxford and visited Merton, Corpus Christi and Magdalene Colleges. In the latter, the Prince of Wales is now being educated. One of these colleges is being converted into a military hospital.

August 18.

We started for Liverpool, the journey being greatly protracted by the war. We had to make two changes of cars and had long waits. We went directly to the Northwestern Hotel, where we had engaged rooms in advance.

August 19.

I went to the Cunard office and completed arrangements for sailing on Saturday.

Saturday, August 22.

The S.S. "Franconia" is due to sail at 2.30 p. m. On arriving at Princess Landing, we found we must embark from a lighter. On account of the great crowd, our luggage was carried on the backs of porters about one-eighth mile and placed aboard the tender. We were conveyed to the "Franconia," which lay at anchor in the Mersey. Until about 5 o'clock, tenders were kept busy bringing passengers and baggage until all were embarked.

The utmost secrecy prevailed, no information as to sailing was given out. In the Mersey at no great distance were three other ocean liners, due to sail today. They remained at anchor and until 6 p. m. were embarking passengers from tenders. No large steamers were at their accustomed docks. The "Laurentic" lay about one-fourth mile to the north; beyond were the "Olympic" and the "Cymric." The "Olympic" is coaling. The weather became stormy during the afternoon. At 7 p. m., as we passed, these other ocean liners weighed anchor and fell into line behind us. Four or five trans-Atlantic steamships formed a stately procession, as we went to sea. Coast defences flashed their search-lights upon us. Soon the last fortification was passed and we steamed into the Irish Sea. Darkness and fog entirely enveloped us and passengers soon retired to their staterooms.

Sunday, August 23.

Early this morning, two British gunboats were passed. They were less than one-fourth mile to the north, but plainly seen through the fog. It is a source of comfort to know that we are being convoyed by British Naval vessels.

At 1.30 we were in the lower harbor of Queenstown, where two Cunard lighters, packed with passengers, were awaiting us. One hour later, all passengers and baggage were embarked and we started upon our adventurous voyage across the Atlantic. Sailing under the British flag, we are a legitimate prize of war if captured by a German cruiser. The chances, however, are decidedly in our favor, only two German cruisers are known to be in the North Atlantic, while it is reported that England and France have twenty-four naval vessels guarding the trans-Atlantic

trade route. Every precaution is being taken against capture. The following notice is posted upon the bulletin board:

"At sunset, it is absolutely necessary to have all ports darkened, no lights are to be shown outside."

At sunset, every light on decks is extinguished, all portholes are closed with heavy black paper and every saloon window hung with heavy curtains. Not a light is visible at sea. In the darkness of the night, steamers may pass within one-fourth mile unobserved.

The "Franconia" is literally packed with passengers. She has accommodations for 250 first-class passengers. We have 580 in the first cabin, 730 in the second cabin and 450 in the steerage. The steerage has been converted into first-class accommodations by temporary partitions, and $150 to $190 is charged per passenger.

Our stateroom is an outside room, but farthest forward in the first cabin. This evening at about eight o'clock, we ran suddenly into a storm which was sufficiently violent to cause many to be ill and most uncomfortable from poor ventilation and extreme motion of the ship.

August 25.

The storm subsided in about twenty-four hours, when another and worse storm was encountered. These storms caused extreme suffering to first-class passengers, occupying steerage accommodations. The stewardess said that never in her experience had she seen such suffering at sea.

Wednesday, August 26.

The storm is passed, the weather clear and very cold. We are evidently taking an extremely northern route; icebergs were seen during the night. The sea is rough, and overcoat and three steamer rugs are not sufficient to keep me comfortable on deck.

The boat is so crowded that there is not an available seat inside. Today women were brought up from the steerage and now occupy couches and chairs in the lounge—a sad spectacle in comparison with the usual appearance of the ball and concert rooms. One sailing vessel was seen during the afternoon.

Thursday, August 27.

The weather is fair, the sea rough, but it is very cold. I have actually suffered more from cold today than any day during several winters past. Where can we be, if not within the Arctic circle? The daily runs are published at noonday, but not the usual chart signifying the ship's position.

We see no ships, have not seen an ocean steamer since we left Liverpool, with the exception of the "Laconia" the second day out. People are beginning to appear upon the decks. They

have spent four of the most miserable days of their lives shut in the steerage. People too ill to get upon deck are carried up and placed in steamer chairs, where they soon revive.

Friday, August 28.

A beautiful morning: sea smooth. Many new faces are seen on the decks. The deck chairs are filled and the steerage is giving up its dead and the saloon contains fewer sufferers. An old lady here and there is seen indulging in solitaire. Games on deck are being played. The temperature has moderated, but as to where we are no information can be obtained. We should be on the Grand Banks of Newfoundland but no fishing fleet has been seen; no fog. Since sea gulls were seen this morning, signifying our near approach to land, it is my opinion that we took an extraordinarily north course, passed close to Newfoundland, probably not forty miles from shore, and are at noon today about 800 miles from Boston Light. At dinner time this evening, the following notice appeared upon the bulletin board. "Weather permitting, the 'Franconia' is expected to arrive at Boston lightship at 11 a. m. Sunday and dock at East Boston at 1 p. m." During the evening, we encountered another storm of short duration. Rain fell in torrents and the ship rolled badly.

Saturday, August 29.

An uneventful day, sea calm, temperature agreeable. Ships are occasionally seen, bound to and from the maritime provinces. Crowds of people are on deck and everyone happy in the anticipation of speedy release.

Sunday, August 30.

From 4 to 6 a. m. the fog shut down heavily and speed was diminished. About 8 a. m. a light wind sprang up and dissipated the fog. At 9.15 land was sighted to the southwest which proved to be Cape Cod. Highland Light at Wellfleet and the monument at Provincetown are plainly seen. Boston lightship was passed at 10.30 and Boston Harbor was entered at about 11 o'clock.

The trip up the harbor was most beautiful as the atmosphere was clear and the sky cloudless. The "Franconia" docked at 12.07.

AN APPEAL.

Financial assistance is requested for a woman physician, graduate of Boston University School of Medicine, who is slowly dying of an incurable disease and desperately in need of help. Contributions, however small, are solicited and may be sent, addressed to "Fraternity," care of either *New England Medical Gazette*, 80 East Concord St., Boston, or to the School. They will be duly acknowledged in a later issue of this journal. One hundred one dollar subscriptions would be a tremendous help, and it is hoped that at least this amount can be raised by means of this notice. "And the greatest of these is charity."

OBITUARY.

Levi Houghton Kimball, M.D.

It is our sad duty to record the passing on into the Spiritual World of our beloved colleague and friend, Dr. L. Houghton Kimball of Roxbury, Massachusetts.

Dr. Kimball was taken from his earthly activities on October 21, in his 62nd year. He was born in Bath, Maine, and in due time entered Bowdoin College to graduate with the class of 1874. His medical education was gained at Boston University, supplemented by a course in New York City and later by special studies in diseases of the eye and ear in the leading hospitals of Europe. He resided in Bath in active practice until 1885, and while there served two years as a member of the City Council. He was also a member of the School Committee, the Park Board, and the City Cemetery Board. In 1885 he moved to Roxbury, where he had practiced ever since.

He was a son of Otis Kimball and Clarissa Ann Houghton, and married Elizabeth Payne, daughter of the late Dr. William E. Payne, also of Bath, and is survived by his widow and two sons, William Otis Kimball and Clarence Houghton Kimball. He was an active member of many homœopathic societies both local and national.

Dr. Kimball was endeared to all his patients and friends and family by his sweetness of disposition and never-failing readiness to offer assistance and consolation to all in need. The writer has known him intimately from boyhood, and feels that words but poorly express the nobility of his character. He was of a remarkably gentle nature, and possessed of the widest charity in all his relations with life, amiable and generous and forgiving, of the utmost integrity, and ever ready to find an excuse for the failings of others. His countenance expressed this nobility of his nature, A rare spirit, he is sincerely mourned by those whom he has left behind.

J. H. P.

Francis Lester Babcock, M.D.

Dr. Francis L. Babcock died October 26, at his home 47 Walnut St., Dedham. He was born in Medfield in 1849 and educated in the public schools of that town. He entered Boston University School of Medicine in 1876 and graduated in 1879 with the degrees of Ch.B. and M.D. He immediately located in Dedham, where his entire professional life has been spent. He was prominent in town affairs, serving 22 years on the Dedham Board of Health, 19 years as physician to Norfolk County, several years on the School Committee, and in many other departments.

In 1906, Dr. Babcock was President of the Alumni Association of Boston University School of Medicine. He was a member of the Massachusetts Homœopathic Medical Society and of the American Institute of Homœopathy. He is survived by his wife and one daughter, Mrs. Harold L Babcock.

Henry Rice Stout, M.D.

Dr. Henry R. Stout, for many years in active practice in Jacksonville, and closely identified with homœopathy in the South, died on October 14, of cardiac asthma.

Dr. Stout was born in Westfield, New York, on March 17, 1843, and his early education obtained there. At the age of fifteen he entered Kenyon College, Gambier, Ohio. Three years later he enlisted in Company A, 134th Illinois Volunteers, serving his country until the close of the Civil War.

He graduated from Hahnemann Medical College of Chicago in the class of 1868, and in '69 was married to Miss Mary Eddy. From his graduation from Hahnemann College to 1875 he practised medicine in Chicago, removing in that year to Jacksonville, Florida, where he remained until the close of his life.

Dr. Stout was a member of the American Institute from 1882 and in 1912 was elected First Vice President of that body. He had served as

President of the Florida Homœopathic Medical Society, President of the State Board of Homœopathic Medical Examiners, and as President in 1891 of the Southern Homœopathic Medical Society, and at the time of his death was Treasurer of the last named Society. He was a member of the staff of St. Luke's Hospital and Home for the Aged, Jacksonville, and a prominent member of the Episcopal church.

Dr. Stout was a frequent contributor to medical literature and was the author of a work entitled "Our Family Physician."

In the summer of the present year Dr. Stout met with an automobile accident in Chicago, from which he never quite recovered. At the time of his death he was visiting a daughter in St Augustine. He is survived by two daughters and a son, Mr. Harry B. Stout, of Jacksonville.

Dr. Leland M. Baker (class of 1894 B.U.S.M.) of Lynn, Massachusetts, died on May 27, 1914.

REVIEW OF MEDICAL JOURNALS

The Hahnemannian Monthly, August, 1914.

1. *Action of Alcohol on Functions and Tissues of the Body and a Discussion of Value of Alcohol as a Food.* Pearson, W. A.

An interesting argument against alcohol being used as a food. This is especially pertinent coming from a professor of chemistry, because most chemists have followed the idea advanced by Atwater and maintained by Benedict and others that alcohol is a food in the true sense. We quite agree with Pearson, but feel that he could have made his argument even stronger. The *Gazette* has taken up the subject in a previous number, and refers to that number, rather than enter here into discussion. (N. E. Med. Gazette, Oct. 1913. p. 525.)

2. *Irregularities of the Pulse: Their Recognition, Significance and Treatment.* Wells, G. H.

A very compact review of the modern conception regarding this very large subject, with some very instructive plates of sphymographic tracings. We rejoice to find such an up-to-date study of diagnostics combined with a consideration of homœopathic therapeutics. Nevertheless we deplore the fact that the writer does not enter more into the considerations of the modus operandi of the remedies he recommends. There is an important field open to investigation in cardiac remedies.

For *sinus irregularity* the author suggests cactus, gelsemium, nux vomica and ignatia. The reviewer ventures the following brief discussion: Sinus irregularity is due to excitation or depression of the primitive cardiac tissue at the month of the great veins, brought about through influences on the vagus nerve. Wells states that it is of "little pathological significance as far as the heart is concerned." McKenzie (Diseases of the Heart, 1908. p. 141) writes: "There is no reason for attaching importance to this irregularity, and no condition should be considered more grave because of its presence. . . . It calls for no special treatment, nor should any attempt be made to treat this symptom alone." In the provings of cactus recorded in the Cyclopædia of Drug Pathogenesis there is only one case where irregularity is noted, this being described as quick, irregular beats after sudden motion, (p. 659). These can be accounted for from the other symptoms, and were probably not due to sinus irregularity. If any drug is to be used homœopathically, we might look among those which act on the vagus, such as digitalis, aconite, veratrum, nicotin, atropin, etc., but if we follow McKenzie's advice there is no occasion for even homœopathic medication in this condition. Nux vomica and ignatia may, by their strychnin content, bring about a slowing of the heart, but the slowing here, as in the above mentioned drugs is not of an intermittent type, except under digitalis (McKenzie Heart Vol. ii. 1910-11. p 290) which, therefore, is the only drug in the materia medica that may be used homœopathically in this condition.

"*Extra Systoles* are produced by a premature contraction of an auricle or ventricle, in response to a stimulus from some abnormal point, but where otherwise the normal sinus rhythm is maintained." Extra systoles may be divided into three types: ventricular, auricular and nodal, but this classification is of scientific rather than of practical importance. We are told that this condition may occur in healthy individuals without producing any impairment of the efficiency of the heart, or it may be indicative of a more less serious change in the heart muscle. The treatment depends, therefore, upon our ability to determine the cause of the irregularity. Should no cause be found we have no grounds for any treatment except through the homœopathic method. Wells informs us that tobacco, tea and coffee are not uncommonly factors in the production of extra systoles and should therefore be omitted from the diet, but strangely enough he does not include these drugs among the remedies frequently called for, namely cactus, cratægus, gelsemium, digitalis, china, phosphoric acid, ferrum and arsenicum. Lewis (Mechanism of the Heart Beat, 1911, p. 126) informs us that the following drugs have produced premature contractions; digitalis, adrenalin, aconitin, muscarin and physostigmin. It would seem to us that cactus, cratægus, china, phos. acid, ferrum and arsenicum would be indicated only by repertorial elimination through the totality of symptoms process, or by empiricism based on clinical recoveries. Prescribed on these grounds we should like to add gold and apocynum.

Auricular fibrillation, as may be readily imagined, is a serious condition. Wells advises the use of digitalis, preferably three to six one-grain capsules of the powdered leaf daily until the rate of the heart is reduced to between seventy and eighty beats per minute. In serious cases he advises the use of strophanthin 1-250 of a grain intravenously, followed by digitalis. He explains the therapeutic value of digitalis in this condition by its power to depress the conductivity of the heart muscle and thus allow the ventricle to assume its own rhythm independently. The author could well have indulged here in more discussion of the action of digitalis. For the first place we should like to emphasize the point that the beneficial action of digitalis is par excellence in cases of auricular fibrillation, but that it does not always benefit this condition. Secondly, the drug must be continued, as Wells points out, in order to get the full benefit. The reviewer has seen a case in McKenzie's clinic of a laborer where the auricles had fibrillated for two years, yet under digitalis he was still able to work. Admitting that the consensus of opinion is in favor of the view expressed by Wells, we are not yet convinced that this explanation is satisfactory. Could 30 drops of the tincture of digitalis daily continue to produce heart block after two years? We should expect to have to increase the dose to bring about the continual paralysis of the function of a group of cells. McKenzie has found that in hearts slowed by digitalis, atropine increases the rate (Heart. Vol. ii. 1910-11. p. 297). Thus digitalis actually retards the ventricular contraction in cases of auricular fibrillation at least in part and in some cases wholly through its action on the vagus (Lewis, ibid. p. 245.) The action would thus be of a stimulative nature which more easily accounts for its efficiency over long periods. Thirdly, though digitalis has never produced auricular fibrillation in healthy human beings, it does bring this about in diseased hearts of rheumatic origin. Now it is precisely in these hearts of rheumatic origin when auricular fibrillation is present that digitalis can best be depended upon to bring about relief. (McKenzie, Heart. Vol. ii. 1910-11. 28.) In other words, the individual who has a heart of rheumatic origin is most susceptible to the poisonous and curative action of the drug. This would suggest that perhaps digitalis does not effect its curative results so much through direct stimulation as through a pharmacodynamic action, a view which still better explains its efficiency over long periods of time. The reviewer has had two cases of auricular fibrillation in patients with a rheumatic history in which one-drop doses of the second decimal dilution of digitalis t.i.d. has unquestionably been beneficial. Is it possible that such small doses could directly paralyze the conductivity of the cells of the Bundle of His, or sufficiently stimulate the vagus to bring this about indirectly? Success from such com-

paratively small dosage suggests a pharmacodynamic action, which, however, we believe is dependent on material dosage. Nevertheless we are well aware that there is much evidence in favor of the prevailing opinion, and we by no means feel ourselves in a position to oppose it with any elaborate defense.

Heart block is a disturbed action of the heart due to the stimulus from the pacemaker failing to reach the ventricles on account of impairment in the conductivity of the Bundle of His. This may be partial or complete. Where it is complete the ventricles beat quite independently of the auricles, and, owing to their lower grade of excitability, much more slowly, usually 30-40 a minute or less. Heart block usually gives rise to symptoms of circulatory failure. When of syphilitic origin, anti-syphilitic treatment may be followed by definite benefit in this condition. Wells suggests iodid of arsenic, chlorid of gold and the iodid of mercury. The reviewer suggests that arsenicum album, phosphorus, aurum metallicina, digitalis, strophanthus, and squills are worthy of mention. Windle (Heart. Vol. iii .1912-13. p. 11) found that digitalis, strophanthus and squills induced heart block in a case of rheumatic mitral insufficiency. McKenzie (Disease of the Heart. 1908. p 180) states that muscarin and digitalis have produced heart block through stimulation of the vagus.

A book published in Leipzig in 1859 entitled "Digitalis Purpurea in ihren physiologischen und Therapeutischen Wirkung," written by Bahr of Hanover is worthy of reading by all homœopathic physicians interested in heart disease. As a classic on the subject it stands with the works of Withering and McKenzie. Strangely enough, this author arrived at many of the conclusions lately reached by McKenzie and others. Recently Askenstedt of Louisville has given us a scholarly contribution entitled "Some Homœopathic Heart Remedies" (Medical Century, April, 1914. p. 75) which to our mind is from its elaborate study one of the best reference works on the subject for the practitioner. We regret that Wells has not made use of Askenstedt's work in giving his indications for treatment. Our homœopathic journals like other medical journals contain much matter unworthy of publication, but we may glean much valuable information from some of the contributions, information which can be found nowhere else. Well's article is one of these, and does credit to the Hahnemannian Monthly.

3. *Therapeutic Uses of Therapeutic Lamps.* Burnett, J. A.
4. *Cardio-Sclerosis.* Askenstedt, F. C.

"In the heart muscle, as elsewhere, connective tissue hyperplasia is produced by one or more of the following processes: (1) A mild and prolonged irritant setting up an interstitial inflammation; (2) venous hyperæmia; (3) atrophy of the parenchyma." The author gives the following classifications of cardio-sclerosis based on that of Huchard: (1) Sclerosis of Heart Failure; (2) Senile Sclerosis; (3) Diffuse sclerosis; (4) Nodular sclerosis, and then goes on to define these terms. "The clinical diagnosis of cardio-sclerosis is presumptive rather than positive. Excepting the effects produced by lesions of the auriculo-ventricular bundle, the symptoms are such as are common to all forms of myocardial weakness, especially when attended by hypertrophy and dilatation." Askenstedt considers that the old time method of directing the patient through a certain amount of exercise and watching its effect, noting particularly his sensation and general appearance, his manner of breathing, the change in color, the degree of fatigue, and the duration of an increased pulse rate after his return to rest, still remains our best index of myocardial competency. He discusses the discrepancies of the blood pressure estimation method in this respect. He might have dwelt more largely upon the complexities involved in attempting to estimate myocardial competency by the blood pressure method, and a mention of the influences from the sympathetic nervous system would have strengthened his argument against placing any importance on this procedure here. We would also suggest the value of the patients' past and present history in these cases. When did he first notice dyspnœa, or pain, and under what circumstances now; how many pillows does he sleep with, etc., are essential to the estimation of myocardial reserve force, and are of

relatively more importance to the prognosis and treatment than the stethoscope, sphygmograph, and electrocardiograph the findings of which are merely of diagnostic value without this other information. The article contains several instructive plates of tracings.

5. *Report of Twenty-eight Cesarian Sections without a Death.* Wadr, F. N.

General consideration of Cesarian section, with a record of each case.

6. *Dietl's Crisis.* Wilcox, D. G.

Written in the free style of the author with a wealth of metaphor, the article makes an impression on the reader to keep this condition in mind. The cases cited serve as good illustrations. It is to be regretted that Dietl is spelled Dielt throughout.

7. *Dermatologic Toxemias of Pregnancy: Their Recognition and Treatment.* Bernstein, R.

A consideration of urticaria, angioneurotic oedema, erythema multiforme, erythema nodosum, purpura, erythema scarlatinaforme, herpes simplex and zoster, pityriasis rosea and pruritis, impetigo herpetiformis and dermatitis herpetiformis as cutaneous manifestations due to the toxemias of pregnancy, with suggestions for local applications and homœopathic medication.

C. W.

The Journal of the American Institute of Homœopathy, October, 1914.

1. *Leprosy in the United States.* F. M. Dearborn.

Dearborn briefly asks for a sane view of the leper, and deplores the altogether too common tendency of the public press to arouse morbid curiosity and to mold public prejudice.

"Within the boundaries of the United States proper there exist between 500 and 700 lepers; these cases had their inception in leprous countries outside of our bounds, hence the disease is not endemic with us; in no well authenticated instance has leprosy been known to have been caught in populous centres, such as New York, Chicago, San Francisco, Paris, London, Vienna or Berlin, where sporadic cases can always be found; our sporadic cases are usually foreign, born in endemic localities, or, if native-born Americans, have lived for an appreciable period in leprous countries; and despite the fact that leprosy is due to a specific germ and is contagious under favorable circumstances, it has been well established that improved hygiene and proper methods of personal living such as exist to a more or less degree in civilized countries render the chance of contagion remote in our country."

2. *Some Modern Sociologic Phases Tending to Criminality.* Frank C. Richardson.

Published in the *Gazette,* October, 1914, p. 517.

The only noteworthy point as regards the "discussion" which follows this paper is that it fails to be commendatory, the deficiency, however, being over-compensated by irrelevancy.

3. *The Totality of Symptoms.* S. R. Geiser.

Two interesting and convincing case reports are given to illustrate the necessity for emphasizing the uncommon, rare and peculiar symptoms.

4. *The Sociological Aspect of Mental Defectives.* A. R. Garner.

Garner urges against the allowing of maudlin sentimentality regarding individual rights to interfere with proper and efficient methods of preventing the propagation of this class.

5. *Diagnosis of Acute Abdominal Conditions in Children.* H. W. Foster.

A brief discussion of the following diseases is given: Acute gastritis, gastroduodenitis, acute appendicitis, acute indigestion, acute ileocolitis, acute amœbic colitis, intussusception, intestinal worms, hypertrophic stenosis of the pylorus, Pott's disease, intestinal obstruction, visceral injuries, pyelitis, pyonephrosis and nephrolithiasis.

6. *Euonymus Atropurpurans.* A. L. Blackwood.

Out of twelve healthy subjects only one exhibited any definite symptoms from dilutions above the 3x. One prover who took the 30x is said to have recorded several symptoms that were in accord with those observed in persons who took the lower dilutions.

Brunettes were more susceptible to the action of the drug than were blondes. Mental lassitude, headache and diarrhœa with cramps and flatus were the more congruent symptoms elicited. Guinea pigs which received subcutaneous injections of amounts up to twelve drops of the tincture showed no ill effects.

7. *Sex Education; Sex Hygiene; Eugenics; a Protest.* J. R. Horner.

Reviewed from the July Hahnemannian Monthly, on page 504 of the September *Gazette.*

8. *Heart Diseases in Childhood.* C. S. Raue.

S. B. H.

The Homœopathic World, October, 1914.

1. *Whence the Power of Attenuated Medicine? And Why Different Attenuations for Different Remedies?* J. W. Overpeck.

The author postulates that disease is a disturbance in the dynamic forces of the tissues of the body, caused by the dynamic force of a toxic substance; and that the indicated drug possesses a curative action in virtue of its content of a toxic principle almost identical in action with that which causes the disease. The action of drugs is supposed to be one of stimulation which puts the offensive cells of the body upon their mettle and results in renewed and determined effort to repulse the invaders.

Overpeck also emphasizes the matter of dynamic action as opposed to the chemical action of remedial agents, stating that relief frequently follows a dose of a high attenuation in such a few minutes that there is no possible time or chance for chemical action. [Relative to this question the agnostic reviewer would call attention to the extremely rapid development of anaphylactic shock following the second injection of proteid into a previously sensitized animal.]

The need of different attenuations for different drugs, the author explains on the ground that different substances possess different degrees of radioactivity.

2. *An Indicated Remedy in Diabetes.* D. Macfarlane.

Believing that the "diseased blood is the incriminating cause of his appreciable symptom-complex," Macfarlane potentizes the patient's blood and administers the 6th to the 20th "dynamization" for the cure of the disease. Water is used as a menstruum.

Three cases are reported, the uranalyses showing an appreciable diminution in the amount of sugar eliminated.

As concerns diet, the first patient "with my sanction, ate *moderately* [editor's italics] of sugar and starch food-stuffs"; the second was asked "not to stint herself as far as the diet went"; the third "ate moderately of the starches and sugars."

The first case was followed, as stated in the report, about seven weeks, the second about three weeks and the third, four weeks.

The author feels "confident that more cases will be forthcoming as to the eminent practicability" of this method of treatment. "Personally there is no reason why this method should not be extended very widely and the dynamized blood in Chlorosis, Leukæmia. Pernicious Anæmia and especially in any bacteriemias should be given a fair trial."

[Reviewer's note.] The paucity of cases reported, the brief period of observation and especially the bald omission of the extremely important data concerning the accurately measured quantities of carbohydrates and other foods which were used before, during and after the period of medication, render the value of the report negligible save for the therapeutic suggestion outlined which should stimulate research of more precision.

3. *Summary of Clinical Evidence on the Use of Tuberculin.* C. E. Wheeler.

Published in the British Homœopathic Journal, 1914, iv, No. 9, p. 437.

The Medical Century, September, 1914.

1. *Some Suggestions on the Treatment of Neuritis.* W. H. King.
2. *Tuberculin in Incipient Pulmonary Tuberculosis.* L. C. McElwee.

3. *The Neglected Field of Animal Poisons as Therapeutic Agents.* J. T. Boland.
4. *Calcarea Silicata.* C. S. Tisdale.
5. *Arsenicum Iodid.* W. E. Reily.

S. B. H.

The Medical Advance, September, 1914.

1. *Christian Science and Homœopathy.* B. C. Woodbury.
2. *Partial Provings of Apium Graveolens.* B. G. Clark.
3. *Present and Future Possibilities of Materia Medica.* J. Hutchinson.
4. *The Prodrome.* C. M. Boger.
5. *Homœopathy and Its Future.* G. A. Almfelt.

SOCIETIES.

Massachusetts Homœopathic Medical Society.

The Seventy-Fourth Semi-Annual Meeting of the Massachusetts Homœopathic Medical Society was held Wednesday, October 14, 1914, at the Westborough State Hospital. About 175 members took advantage of a fine Fall day to avail themselves of the opportunity which the attractive program offered.

The session was opened with a short business meeting which was called to order at 11.30 A.M. by the President, Thomas E. Chandler, M.D. Harry E. Davey, M.D., of Keene, N, H,, Sanford B. Hooker, M.D., of Boston, and Alfred E. Mills, M.D., of Somerville, were elected to membership.

After the business meeting groups of members were conducted to the various departments of the Institution by staff physicians. Then a tasty and elaborate luncheon was served.

Dr. John L. Coffin as Chairman of the Board of Trustees opened the afternoon session with a short speech of welcome in which he told of the method used at Westborough in grouping the various classes of patients, and also gave a resumé of recent legislation as it has affected the State Institutions.

Following this talk, clinics were given by Harry O. Spalding, M.D., Superintendent, M. M. Jordan, M.D., Assistant Superintendent, and Solomon C. Fuller, M.D., Pathologist, illustrating the Dementia-Præcox, Manic-Depressive, and Arterio-Sclerotic phases of Insanity. Each clinician first gave a short talk on the phase to be illustrated, and then exhibited his cases. This made a very interesting and instructive clinic.

All the members who attended were enthusiastic in their praises of the meeting. Every one had a good time, the personal good time which we believe is to be found only at these "District" meetings.

PERSONAL AND GENERAL ITEMS.

FOR SALE.—Within ten miles of Boston, a $7,000 practice. Fine location in residential town. A great opportunity for the right man. Apply to "Business Manager," *New England Medical Gazette,* 80 East Concord St., Boston, Mass.

Dr. Claude A. Burrett, formerly of Ann Arbor, Mich., has been appointed Dean of the newly organized College of Homœopathic Medicine in the Ohio State University, Columbus, Ohio.

Dr. Susan M. Coffin, class of 1910, B.U.S.M., has removed from 286 to 296 Newbury St., Boston,—the new address of the Reed Hospital.

Dr. Charles A. Powell, 1013 B.U.S.M., has gone from the mission field in Nanking to Chao Hsien, China.

Dr. Lillian B. Neale Wood (class of 1898 B.U.S.M.) has removed from Dorchester to 290 Commonwealth Avenue, Boston.

Dr. Lena H. Diemar (B.U.S.M. 1898) is not at present in general practice, having assumed the medical directorship of "Kinderhof" in Walpole, Massachusetts, the unique philanthropy in which Dr. Sarah S. Windsor and Dr. Neale-Wood are so deeply interested.

Portland, Oregon, has been selected as the place of meeting for the next session of the American Institute of Homœopathy. As, owing to the Panama Exposition, to be held in San Francisco, transcontinental rates will be low, it will give Eastern physicians and their families an unusual opportunity to visit the Pacific Coast and to enjoy en route some of the magnificent scenery of our own country.

Dr. Frederick L. Emerson has opened a Boston office at 416 Marlborough Street, for the practice of his specialty, obstetrics. He will not, however, discontinue his Dorchester practice.

Dr. L. Houghton Kimball (B.U.S.M. 1877) for many years in practice in Roxbury, Mass., died at his home, 15 Elm Hill Avenue, on October 21. Obituary notice appears in this issue of the *Gazette*.

Dr. Clifford W. Harvey has opened an office at 511 Talbot Avenue, Dorchester, (Boston).

The practice of the late Dr. H. W. Webner of 1427 W. Lombard St., Baltimore, has been taken by Dr. C. A. Mentzer.

Dr. George Allen Davies has succeeded to the practice of the late Dr. H. R. Stout, of Jacksonville, Fla.

Stenographer who has been office secretary to prominent Boston surgeon for six years, and has also had experience in business offices, would like position with one or two doctors, or work by the hour or half day. References. Terms reasonable. Address "M. E. T." Care of N. E. Medical Gazette, 80 East Concord St., Boston.

Dr. and Mrs. Harold L. Babcock are receiving congratulations upon the birth of a daughter, Constance, Oct. 2, 1914.

CLOTHING FOR BELGIAN REFUGEES.

Wishing to aid in the merciful work of helping to feed the hungry and clothe the naked, the *Gazette* management offers to serve in the capacity of a collection center for clothing to be sent to the heroic Belgians now in such sore need of clothing of every description. Many of us have garments hung or put away which we could easily spare and which would give comfort to the shivering refugees. Anyone willing to contribute clothing of any kind—suits, coats, underclothing, shoes, hats, caps, sweaters, for men, women and children—may leave such with the *New England Medical Gazette*, 80 East Concord Street, Boston, and it will be promptly forwarded for shipment. Money also would be gladly received and forwarded.

THE NEW ENGLAND
MEDICAL GAZETTE

VOL. XLIX DECEMBER, 1914 No. 12

ORIGINAL COMMUNICATIONS.

THE POWER THAT CURES. *

By Robert Walter, M.D., Walters Park, Pa.

Existence, in its ultimate analysis, is made up of power and product, of which power is necessarily first, the product being the result of its operations. These are properly distinct, though often confused, empirical science frequently seeking to extract the power from the product instead of deriving the product from the power.

The power is an invisible potency, intangible but none the less real, a matter of inference purely, while the product being obvious and usually tangible, is ever before us—a subject of observation. As a consequence, effects are observed long before the power that produces them is inferred, and so discovered, as the work of the great Newton clearly proved.

Power and product are the constituents of every science whose work consists chiefly in determining their relations in detail. Science being a description of Nature, necessitates that discovery of the power be the essential discovery from which we may proceed to deduce results preparatory to producing them.

Power is known in science as force, of which there are two classes, the exact opposites of each other in all essential respects, to distinguish which is a first step toward exact knowledge. Prof. W. Stanley Jevons (Univ. College, London) in his great work "Principles of Science," well says:

"All logical inference involves classification" . . . . "whose value is co-extensive with the value of science and general reasoning"; and he quotes Professor Bowen of Harvard College, as saying:

"Perhaps it will be found in the sequel that classification is not only the beginning but the culmination and end of human knowledge."

* Read before the Pennsylvania Homœopathic Medical Society, September 26, 1914.

The two classes of forces mentioned, occupying opposite extremes in Nature, are well described as:

Inherent and Incidental,

Intrinsic and Extrinsic,

Producers and Produced.

The first class are known as chemical affinity, gravitation and vitality, the power of life. It is clearly proved, if not self-evident, that these are producers that cannot be produced; inherent in the constitution of the things in which we find them, without which the things could not have come into being nor can continue to exist; intrinsic, always operating from within, outward, so making all the processes of Nature to be evolution in its philological and only true sense, and not involution, as a great modern sophistry seeks to establish.

The second class of forces, described as incidental, extrinsic and produced, are heat, light, electricity, magnetism, etc. These are products and not producers; incidental to existence, but not essential; they constitute occasions of results but not causes; they induce but never produce; and being a large part of our environment, they influence production, but never supply the power that produces.

In view, therefore of the value of classification as above quoted, what can one think of the so-called science or philosophy that jumbles these classes into one inexplicable mass, and makes them "all transmutable into one another, back and forth, without loss"? Gravity, affinity and even life may be made to produce heat, light, electricity and magnetism, but are never transmuted into them, but the absurdity of supposing that these may be returned to the source whence they come, requires no argument or evidence, the idea of heat or light being transmuted into gravity or affinity being too absurd for consideration.

The forces mentioned are also properly classed as causes and occasions, the cause being defined as "that by the power of which an event or thing is," while the occasion is an accidental or incidental occurrence which brings into operation the cause. To distinguish between these is an additional step towards exact knowledge. Both exist in Nature and both are necessary to production, but which is which? Which is cause and which occasion? Which is power and which is product, is a problem whose solution is involved in all science.

Perhaps no two words in our language are so frequently confounded as the words *cause* and *occasion*, the cause of every result always being invisible, never a subject of observation, is invariably overlooked in any science based upon observation, as is medicine, while the occasion, being usually obvious, is naturally mis-

taken by rustic ignorance for the cause; but that a learned man should devote a whole life time to the establishment of a system of philosophy based upon this fallacy, is entitled to be regarded as an eighth wonder of the world. And that medical science so-called, after two thousand years of study and experiment, should still continue a fallacious practice based upon this enormity is hardly less wonderful. It is no more reasonable to suppose that a drug supplies to the patient the power of cure than that a spark furnishes to a thousand tons of dynamite the power of the consequent explosion.

The truths thus set forth are especially applicable to any science of medicine. The power that cures is the same that made, and the process of cure is identical with the processes of production; the power that made the organism is the perfect analogue of that which made the spheres, revolves them in space and around their axes, producing eclipses, tides, etc., gathers the waters together in river, lake and sea, carries up the mists to form the clouds, wafts them over mountain and valley and brings them down again in the form of rain, sails the ship or sinks it, enables us to swim or drowns us, brings water to its level or raises the waves mountain high, floats kite or balloon or dashes it to earth, and does a thousand other opposing and contradictory things in response to what conditions exist or occasions are supplied. This, indeed, is the work of gravity, one of Nature's great, original, producing forces, the cause of all astronomical phenomena, the discovery of which by Sir Isaac Newton was the true beginning of physical science. Thus Newton paved the way into which the chemists were attracted, and chemical science, in perfect analogy with that which is physical and mechanical, was the result. Chemical affinity is the cause and source of all chemical combinations and disintegrations, exactly opposite results being produced by the same force in response to opposite conditions. Chemical affinity makes dynamite and explodes it and constitutes the force of the explosion, preserves our house or burns it to the ground, makes acid and alkali, heat and cold, electricity and magnetism, the very opposite results again being responses to opposite conditions or occasions. The cause or power that does the work is always from within the thing that works, any applications from without being occasions but never causes.

But Nature is a trinity, composed of three fundamental departments, as Sir John Herschel long ago showed, the living world being as truly a part of the original creation as the mechanical or chemical ever were. These three complete the circle and include the whole of natural existence, and existing side by side, having the same origin, developed by similar processes, are neces-

sarily analogous with each other. It were an outrage upon human reason to disconnect human life, any more than gravity or affinity, from the Source of all, as well as from the processes of creation, as some seek to do. Gravity, affinity and vitality are fundamental forces, derived immediately, not mediately, from the Great First Cause; for there is no other conceivable source, any other theory being an affront to human intelligence as well as to divine revelation. And Prof. W. Stanley Jevons, before quoted, well says:

"The application of 'Scientific Method' cannot be restricted to the sphere of lifeless objects. . . . . Whoever wishes to acquire a deep acquaintance with Nature must observe that there are analogies which connect whole branches of science in a parallel manner, and enable us to infer of one class of phenomena what we know of another. . . . . The physical sciences may be made the practice ground of the reasoning powers because they furnish us a great body of precise and successful investigations. . . . . An interchange of aid most wonderful in its results may thus take place, and at the same time the mind rises to a higher generalization, and a more comprehensive view of Nature."

In the face of which truths who will say that vital science may not properly be developed on principles in perfect analogy with those of the sister departments? Who, indeed, will say that the phenomena of vital science are either more numerous or complex than are those of the physical realm?

We properly inquire as to methods by which astronomy became an exact science; and the answer is that astronomy is the product of the logical development of a great discovery, constituted of an original force, inherent in Nature, from which all mechanical phenomena are deduced. An identical discovery has yielded to us an exact chemical science; and we properly inquire, why not vital science be developed on the same principles. We have here a two-thirds majority, two out of three departments have yielded exact sciences by *deducing* from primary principles what Nature has *produced*. No one questions the existence of gravitation, chemical affinity or vitality, invisible potencies though they are; and no one can doubt that they have been in operation throughout all time, why not therefore regard them as original, producing forces, the cause and source of all the processes and products of their departments?

"Scientific method" is the logical method; when science is based upon observation purely it is a fallacy and a fraud. The deceptive nature of appearances is an age-lasting phenomena; only fools rest content with what they see.

But all things in accordance with law is the testimony of both science and revelation, and that the law distinguishes with

wonderful clearness between the apparent and the real, we all know, because Newton gave us the proof.

But whence the law? Both science and philosophy agree in the recognition of a Great First Cause, as the Source of all that is, law included, all of which however, exists in three fundamental departments, the product of three fundamental forces always operating in accordance with fundamental and unchangeable laws, illustrative of the character of their Author, to the nature and source of which we now turn.

Law is primarily the edict of a lawgiver, and the genesis of revelation records three great edicts as the underlying basis of all that is. When God said, "Let there be light and there was light," He established the great original source of light, chemical affinity; and when He said, "Let a firmament be established and let the waters be gathered together," He established that great law which does these very things. And when He said, "Let the earth bring forth grass and the herb yielding seed," He gave forth the law which supplies not only all living things, but all the manifestations of life in whatever form they appear. These laws, separated by an intervening night, are thus shown to be distinct and separate sources of power, the three including the whole, the additional days being employed in the practical application of the principles just established. And as science is a description of Nature, proceeding from cause to effect, as Nature does, and not in the opposite direction as does empirical science, a consistent knowledge of the three yields not only logical and exact science, but furnishes also the basis of a philosophy which shall not lose itself in bald agnosticism—a philosophy which shall become the basis of a reconciliation between science and religion, mind and matter, God and man—a philosophy which traces all results to the Source of All, and so shall not break the connection between the Great First Cause and His universe.

All things, therefore, being in accordance with law, an invisible principle of existence makes this discovery to be the primal element of all science as well as of all productions. As thus employed the term includes the power that works and the method of its operations, both of which are obvious in Newton's formula. It is this which gave to us both astronomy and chemistry, and it is this which must yield to us a reliable vital science, if such is ever to be secured. Newton's law is expressed in the words:

"Every particle of matter in the universe is attracted to every other particle with a force directly proportioned to the mass of the attracting particles and inversely as the square of the distance between them."

While life's great law, the fundamental principle of an

analogous department, couched in analogous language, the cause and source of all its productions, should yield equally reliable results.

Life's Great Law. Every particle of living matter in the organized body has been produced, and is sustained, by a power of life, properly called vitality, endowed with an instinct of self-preservation, the effectiveness of whose work is directly as the amount of the power and inversely as the degree of its manifestation.

The truth or falsity of this law will be proved by its application to the solution of all medical problems, success in which will answer to the needs of medical and hygienic science as nothing else has ever approximated. And the truth will be suggested, if not proved, by the fact that the conclusions of the law will be the opposite of what appears, and what has heretofore been accepted as reality. For Newton proved that the apparent and the real are opposed, a fact not more evident in the physical than in the vital realm. First, then, disease instead of being an enemy to be vanquished is, on the contrary, a friend to be encouraged. That most men sooner or later die of disease is no proof of its destructive nature, for how could it be otherwise when the learning and talent of our times are chiefly engaged in preventing the successful operations of the curative processes? It cannot be disputed that disease as well as health, is a process of life, which process may be carried forward with ease or dis-ease, with comfort or discomfort, successfully or unsuccessfully, and whether the one or the other depends upon the amount of the power possessed and the character of the conditions supplied. Instead of being opposed and thwarted by contrary medication, disease should be aided by that which is similar; instead of being treated by methods which deplete the power they should, on the contrary, recuperate it by methods which reduce activity and conserve power. The force of health and force of disease, we have seen, are identical, and both are the patient's vital force, seeking to maintain, repair and perpetuate the organism, and the difference between health and disease is one of environment first, to be followed soon, in cases of disease, by depletion of the power through unfavorable environments, generally aggravated by unfavorable treatments, due to erroneous conceptions of the nature and processes of health and disease. Definitions are in order:

Health is the normal, easy and comfortable performance of the functions of life, due to favorable conditions and sufficient power; while

Disease, as the name implies, is abnormal, difficult and even painful performance of the same functions due to unfavorable con-

ditions with power insufficient to do the work easily under the conditions present.

But whether it be health or disease Nature's work is always self-preservative, preserving health or repairing injuries, but may be so diverted from its legitimate work by violent applications from without, such as drug poisons, cold baths, etc., as to greatly delay, or even stop the process of cure, and prevent recovery, all the while the treatments yield relief because the suffering being due to the curative process, relief is obtained by stopping the process. This is the work of all who operate according to appearances, unmindful of the law. Prevailing medical practice being wholly engaged in giving relief, makes invalids and prevents recovery, so yielding us five times as many physicians in this country according to population, as there are in continental Europe because of five times as much sickness; for how else shall we explain the paradox? Relief is, of course, the important element in every form of treatment, but this can be more readily secured by supplying favorable conditions and aiding the process of cure as in homœopathy than by stopping it through the use of violent appliances. Both plans may be effective but the one means permanent recovery while the other gives temporary relief only to necessitate renewed effort at cure at some future time, hence chronic diseases, the scourge of our country.

The word conditions is very generally synonymous with the word occasions, neither of which supplies any power, but only calls forth and expands what the patient possesses. Medicines, and other treatments, are occasions which supply or change conditions, as drugs always do, making the two words interchangeable in any discussion. It is, therefore, properly concluded that all results in Nature depend upon

First, the power that produces, which in this case is the patient's power of life; and

Second, conditions for the operation of the power.

The power being from within and always invisible, is easily overlooked, while the occasions of the result, being usually obvious, are easily mistaken for the cause or power, a mistake which Mr. Herbert Spencer has undertaken to exalt into a philosophy. His theory that the power of life is produced from environment, and that all results are derived from external forces, if true, would justify the theory that all curative power resides in the medicines administered to the invalid, which medicines must be in sufficient dose to be effective; but let it once be conceived that the medicines supply no power of cure, but are only occasions which call forth the power already in the patient, and the crude dose is at once dispensed with. As an infinitesimal spark will liberate the power

stored in a thousand tons of dynamite, or will start a conflagration that will burn a town, so an infinitesimal dose of medicine will start and continue curative operations in the worst diseases, provided only the patient possesses the power of cure. It were absurd to suppose that the power of cure resides in the drug; the fact that it is a poison destructive to life, contraindicates any curative virtues. On the contrary, when of a kind calculated to produce a similar disease, it arouses the vital powers to a more vigorous operation of cure, recognition of which truth will stop the constant tendency of the profession to increase the dose and so prevent recovery, instead of allowing the patient a reasonable chance to return to health by virtue of the power of cure inherent in him.

But results, it is to be noted, are not directly as the amount of the power simply, but inversely as the degree of its manifestation as well. On that word inversely hinges consequences inconceivably great in Life's Great Law as well as in Newton's. Power of necessity precedes product, the character of which corresponds to the amount of the power as well as depends upon its distribution. Hence all processes are properly employed to increase the power, in the attempt at which a most egregious error occurs, a recognition of which, it is believed, would soon double the average of human life, or at least empty a few insane asylums. The nervous diseases of our times in their infinite variety and disastrous consequences, would materially decrease or disappear once the forced manifestation of power is known to reduce its possession. Let it be clearly established that a forced appearance of power in the patient is power drawn from, not communicated to him, as is generally imagined, and medical theories and practice would undergo a wondrously beneficial revolution. This great truth was foreshadowed in that remarkable paradox of the Great Teacher: "He that would save his life shall lose it," a declaration which must no longer be regarded as extravagant hyperbole, but a fact of history that has been in active illustration for thousands of years. Increased manifestation of power, under an extremely narrow view, has for ages been mistaken for increased possession of it, and means are still everywhere in vogue seeking to increase this manifestation, not knowing that in doing so its possession is being correspondingly reduced. We protest that the physician is no more adding to a patient's power of life by increasing its manifestation through stimulation than the engineer is increasing the power of his engine by blowing off steam. Power is an invisible potency, its very existence being unknown except in the work it does, so that increasing the work increases the manifestation of the power, and correspondingly reduces its possession. We can-

not eat our cake and keep it too; power manifested is power expended, while reduced manifestation, as in rest and sleep, is the true process of recuperation; and all treatments that would yield permanent benefits should operate as sleep does, by reducing manifestation and hoarding power. It is vital power that cures and the rapidity and certainty of cure correspond with the amount of the power, so that all processes that would be permanently successful must accumulate or recuperate that power while nothing is done to deplete it. Bleeding and purging reduced force of disease because they reduced the force of health, but provided for worse diseases in the reaction. The profession, realizing this truth, started on a new series of experiments, and for sixty years medical treatments of all kinds, pure homœopathy excepted, have been engaged in depleting the vital forces, especially nerve power, because they have mistaken manifestation for possession. The marvelous increase in the number and violence of nervous diseases of our day, is due to nerve stimulation just as the choleras of the past were due to purging, and the frequency and virulence of smallpox, typhus, black death, etc., were largely due to impoverishment of the blood through bleeding.

But the manifestation of power which exhibits its expenditure is not confined to the use of tonics and stimulants, but is a concomitant of a variety of things, especially the use of food. It is still believed that things without life can communicate the power of life to living things;—that it can give what it does not have. The digestion and assimilation of food induces work, and work expends power and so manifests it, but as we have seen, the manifestation of power reduces its possession. Food is material for the building up of structure, but it yields none of the building power. It is fuel to the organism just as coal is fuel to the boiler, but whoever heard of imposing more fuel and increasing the steam pressure as a means of repairing boiler or engine. Food is material destitute of life and so cannot yield what it does not have, but by combustion in the organism it yields physical force for the doing of physical work, but it is the organism that does the work and manifests the power, often doubling the blood pressure, giving an appearance of strength by the very processes which expend and exhaust it. Again we say, recuperation of power—a vital inheritance, possessed of all healing virtues, is secured through reduced manifestation as in rest and sleep, in which power is hoarded rather than expended as by activity, excitement and labor, which induce exhaustion and prevent recovery all the while they seem to be promoting it.

"The things which seem to be are not
And those which are seem not to be,

This world's a world of paradox,
We dare not trust e'en what we see.

The changeless moon seems changing ever,
The sun sets daily yet sets never,
The stars seem near and yet so far,
So small they seem, so great they are,
It is a world of seeming."

PLAN AND SCOPE OF THE LUMBAR INCISION.*

By Joseph Henry Fobes, M.D., F.A.C.S., New York City.

For many years past the lumbar incision has been used solely for operations upon the kidney. Of late, through the research work of Longyear and other investigators, the anatomy of the abdominal organs in relation to the kidney and to the posterior abdominal wall has been emphasized.

As a result, it has become possible to group with the kidney operations at least two other procedures through the same incision. Since 1905, when I first had my attention called to the fact through reading an article written by Edebohls and Emory Lanphear, that the appendix could easily be removed through the kidney incision, I have been accompanying my operative procedures on the right kidney by an appendicectomy through the same incision. Of late I have been adding operations upon the gall bladder and ducts to this method.

It is interesting to note the relationship of the right kidney and abdominal organs. The upper pole of the kidney is grooved by an hepatic impression; the lower pole is grooved by an impression of the hepatic flexure of the colon. Similar impressions are noted on the left kidney in connection with spleen and colon. The kidney capsule has developed a specialized band similar to the peritoneal ligaments running from the lower pole of the right kidney to the colon, spreading out fan-shaped over the colon and acting as a support to it, and also as a support for the kidney. This has been demonstrated first by Longyear and in the past four cases it has been satisfactorily demonstrated to me.

The gall bladder lies directly anterior to the upper pole of the right kidney and is easily reached through a small opening in the peritoneum. The appendix lies an inch to an inch and a half below the lower pole of the right kidney and may be reached by an opening through the peritoneum below the point where the colon ceases to be extra-peritoneal, except in cases where the ap-

---

* Read before the Connecticut State Homœopathic Medical Society, October, 1914.

pendix lies retro-cæcal, when it is very easily demonstrated without opening the general peritoneal cavity so widely.

With these facts in mind, I should like briefly to go over the various procedures in connection with this method of operating.

Kidney Operations.

In cases of falling kidney, I perform the usual Edebohl's incision. For nephrectomy the Kocher or the Keyes method, fracturing the twelfth rib, or the method of Mayo, which I consider the best, where the fascia is carefully dissected off the twelfth rib and the pleura stripped back without any danger.

For plain nephroptosis I prefer the method of Longyear whereby the nephro-colic ligament, running from the lower pole of the kidney to the colon, is freely dissected, but the kidney capsule is left intact and two or sometimes three layers of muscle passed beneath the ligament which firmly supports the kidney and also relieves a coloptosis so often present in these cases.

Renal Calculus.

The exploratory operation for renal calculus is performed through one of the above incisions and the pedicle of the kidney being held up and forceps covered with rubber tubing to control the hemorrhage, a longitudinal incision is made posterior to Brodel's white line and the kidney carefully searched for stone.

On closing kidney, catgut sutures plain are passed suturing lightly through the kidney substance with a blunt or reversed needle. After the second knot of these sutures is tied, a dressed tube drain is tied with the third knot. This drain leads backwards through the incision.

Nephrectomy.

Partial or complete nephrectomy may be performed through this same incision. The ureter and the renal vessels are separated carefully and ligated separately, the ureter being cauterized with carbolic before being ligated.

Hydronephrosis.

Hydro and pyonephrosis are also attacked through this same incision, nephrectomy or drainage operations being performed.

Appendicectomy.

The appendix is found below the lower pole of the right kidney, the landmark being the postperitoneal ascending colon. This is marked by its bands and by the fat found on the colon. Passing the finger down along the colon, one comes readily to the peritoneum. Between forceps the opening is made in this and the

abdominal cavity entered. The appendix is found quite readily and ligated in the usual manner. A postperitoneal appendix is much more readily found by this incision than by the anterior abdominal method.

The drainage of an appendicular abscess is more readily obtained through the posterior route, natural gravity drainage being the rule.

Gall Stones.

Gall stones, cholecystitis and other inflammations and diseases of the gall bladder and ducts may be attacked through the kidney incision. The technique consists in making an opening in the posterior peritoneal lining of the abdominal cavity directly anterior to the upper pole of the right kidney. The exploring finger quite readily recognizes the gall bladder and with a little traction it is readily brought into the wound where the usual methods of treating such conditions can be followed out. Through this same wound, exploration of the stomach, pancreas, and even over to the left kidney and spleen can be carried out.

A recent case shows the value of the combination of these methods. An elderly German, Mr. G., a veteran of the Franco-Prussian War, had suffered for many years from malaise, indefinite symptoms of pain referable to the right side, and with that preliminary history which so frequently accompanies gall stones or kidney stones or acute appendicitis or almost any abdominal condition. The internist referred him to me as a case for renal exploration.

A posterior incision was made, the kidney exposed, found to be enlarged, the pedicle was clamped with a soft light-bladed, rubber-covered forceps and the kidney searched, with the result that a few small renal sand-like particles were discovered, hardly sufficient, however, to account for his attacks of pain. The kidney was cleaned, sewed up in the manner described and a drain placed.

Attention was then directed to the appendix which was found to be in a condition of chronic inflammation, but of hardly any more severity than the condition found in the kidney. The next point of interrogation was the upper abdominal region. Upon incising the peritoneum opposite the upper pole of the right kidney, the exploring finger came in contact with the gall bladder full of stones. The ducts were palpated and found free. The stomach was examined and no nodules or indurated spots were present. Therefore the gall bladder was brought up to the posterior peritoneum, a dressed tube was placed in it and it was drained in the approved fashion. This case has progressed to a good recovery and expresses his delight at being relieved after suffering for many years.

Most of our patients who suffer from stone formations are elderly, obese and are difficult patients to pull through. The age militates against a double incision back and front, and the adipose condition renders the approach to some abdominal organs more favorable from the back than from the anterior. Therefore I think it reasonable to suggest that this method be given a more thorough trial. I can assure you that you will find it full as easy and a great deal more satisfactory to deal with all three of the conditions through the lumbar incision than to make multiple incisions through the back and front or to attempt to take care of them by an anterior incision through the obese abdominal wall.

In conclusion therefore, *First*, hernia and many other complications of the anterior incision are practically unknown through the lumbar incision. *Second*, through the lumbar incision it is not only possible, but reasonably easy to perform satisfactory operations, not only upon the kidney, but also upon the appendix and the gall bladder. *Third*, it is much better to clear up the pathology of the case through the one incision, rather than to make two incisions or to operate in two or three stages to obtain the same result.

DIRECT NEWS FROM THE WAR FRONT.

(Copy of letter from Dr. E. Petrie Hoyle.)

H. M. S. Transport Invicta
Crossing Dover to Dunkirk.

Oct. 20, 1914.

Dear Doctor Sutherland,

Time has flown very rapidly in the last eight weeks and yet it seems years in that so much has been crowded in that time.

For four weeks we labored 14 to 18 hours a day in Antwerp—sometimes not taking our clothes off for three days and two nights when the rushes came in after battles. (I am writing now whilst I have a short time crossing from Dover to Dunkirk—but I may have to quit and go up for fresh air as it is rough—though I am not often upset by the sea).

First I will sketch, in brief, how we came to get to the front. When the war first broke out a London lady cabled the Queen of the Belgians that she would raise a Hospital unit which would not be any expense whatever to the Belgians, as they were obviously in sore distress. This offer was taken up by the Queen, who graciously became our Patroness, and also by the Belgian Red Cross. We were known as the "Ambulance de la Reine."

When we were roughly formed we pushed across to Ostend and wired the Belgian Red Cross at Antwerp that we were there and *ready* for anything anywhere. After two days waiting in

Ostend we received an order to entrain at 8 p.m., that day in a special train for Antwerp, and, to make a long story short, when we arrived at Antwerp we were shown into a beautiful building at 99 Boulevard Leopold, which was well fitted up with 150 beds.

The building had been erected by a stockbroker when things were booming with him, and so there were double marble staircases (front and back), mirrors galore, hand-painted panels and ceilings, etc.—Then he "*bust,*" poor chap, and the city bought it for an advanced school, which purpose it served for two years. Some water and gas supplies were added, but it lacked proper hospital plumbing, but we managed—with a little extra trouble.

Briefly, we worked there four weeks, with the Germans steadily gaining all around all the time, and we knew the end would come pretty much as it did.

We had over 500 cases in the four weeks, because the military doctors used to visit us every other day to evacuate any likely convalescents whom they thought might be safely cared for by less experienced hands, though sometimes they were doubtless moved by the thought that we had a very fine operating room and so they tried to send us bad cases.

We only lost eleven by death, and at least three of these were moribund on entry from the nature of their wounds. We only had one limb amputation (a lower 1/3 leg), and all our conservative work on the other shattered members justified our conservatism, which, however, entailed much more arduous treatments, such as 2 and 4-hourly fomentations, saline arm and leg baths, etc. There will be some stiff joints, but the natural limbs will be preserved.

The dressings used were—mainly—and always at first, plenty of iodine tinct. locally and inserted deep into the tracks of missiles. Then Cyanide Gauze dry dressings, etc.

All schrapnel wounds suppurated within twenty-four hours. We used H_2O_2 when we could get it. Iodoform, etc., Boric acid, etc., found favor at times, but we found when we ran short of these that plain normal saline irrigations and fomentations did *better* than any other application, until some of us used it in preference in many cases. Nothing caused skin growth over extensive raw surfaces like normal saline fomentations.

I bought some Calendula tincture which I used in certain ugly and extensive cases of suppuration, and I found that these wounds were invariably "sweet" in about two days, although very offensive when Calendula was first applied. I used from tincture to 1 in 4 or 1 in 5.

Several nurses who knew nothing of the drug were much impressed. I used Calendula on two cases of gangrene with very

marked success and cure. These cases we had to put out in a glass-covered shed (lean-to) in the schoolyard, the front being open day and night, and we kept these patients warm by hot water bottles and extra rugs. One case of gangrene was a plated femur —the plate being 8-inch steel plate with 8 silver screws—covering and connecting an upper and lower bone and fixing a middle fragment of some two inches long. The other had a piece of his frontal skull plate blown off by a glancing fragment of shell, with exposed brain tissue. This case never lost consciousness even from the first. It was the edges that went gangrenous.

The fresh air certainly made these cures possible, without which they would have died. Ours was the only hospital where we had open windows, which ventilation was only obtained after repeated battles with the patients' friends, as the patients themselves soon coöperated with us in this measure.

We had eight cases of plated femurs. Two subsequently died from multiple wounds of extensive nature.

The story of those four weeks is too long to attempt now. I never had any time for notes. The day we evacuated we had experienced over fourteen hours of a *very* severe bombardment such as has been graphically described in the press.

It is perhaps doing the Germans an injustice to say they aimed *at* the Hospitals, but it is a fact that most Hospitals were hit and many contiguous houses blown to bits. Houses in front and at the back and on either side of us were struck, and we heard from a refugee family that our Hospital was struck after we left.

We took all our wounded out in seven London motor omnibuses (usual type). I was sent off in charge of the first three, which contained 77 wounded. The insides contained about eight of the worst cases placed transversely, the gangways being stuffed with pillows or covered by our fracture boards.

A nurse went in one, a dresser in another, and I was with the third. I was sent as I had an American passport and it was thought that if we blundered into German hands I might get them through on the strength of that passport. Neither our three nor the following four met any Germans, though we had to leave main roads and take local guides who piloted us along country byroads. The first three left at 2 p.m., and got to Ghent at about 10.30. The second lot left one hour later and got to Ghent at 5 a.m.

I met Dr. Samuel Vanden Berghe at Ghent, who rendered us valuable assistance and much hospitality to some few of us. All hearts must go out in sympathy with him and his family, who stuck to their posts, as well as to all other of our Belgian colleagues. I met Dr. Boniface Schmidt at Antwerp.

We had to leave a few of our worst cases at Ghent and others

next day at Bruges. We took most of the British wounded on to Ostend. Eventually we all had to flee from Ostend to England, where we have reorganized, and now are en route for Dunkirk to found a base Hospital in the old monastery at Fernes (?) about six miles back of the (supposed) fighting line, but we must be ready to evacuate even this on two hours notice—if found necessary.

This time we are directly under the rule of the Belgian Minister of War, who has given us great scope and powers, as we are a proven unit of value.

I forgot to say that the bombardment of Antwerp began on the stroke of midnight, whereupon we had all to carry the wounded down in our cellars, kitchens and storerooms, all down in the basement. It was very hard work to care for them, as you can suppose. The water works had been "bust" some eight days before, after which we depended on the brackish (semi salt) water of the Schelt. It was awful stuff to drink in even tea or coffee. I wonder how many million sewage microbes—not to speak of corpse juice—we drank? All streams in Belgium are very polluted now with corpses of man and beast.

You will be glad to hear that I have successfully cured quite a number of cases of diarrhœa with China and others with Colocynth, whilst several in soldiers responded on one or two doses of Gelsemium tincture (5 or 8 drop doses) on the back of their hands. These latter were diarrhœa from *fright* in the trenches and had as collateral symptoms severe headache, goose flesh, with pronounced shiverings, which *proves* that they were caused by fright.

I lost a case of fifty odd remedies in the rush of evacuation. I am taking 36 polycrests out with me this time, including remedies to cover diarrhœa, bronchitis, pneumonia, etc.

Etherized camphor hypodermics are splendid for shock, etc., being much better than strychnia, etc.

I hope to send this back to England by the purser.

Hoping to see you all in the flesh after this work is over, with kind regards to all,

Sincerely,

E. Petrie Hoyle.

The trials that make us
  Fume and fret,
The burdens that make us
  Groan and sweat,—
Are the things that haven't
  Happened yet.

THE MENTAL HYGIENE MOVEMENT.*

By Arthur H. Ring, M.D., Neurologist to the Symmes Memorial Hospital, Arlington, the Out-Patient Department, Massachusetts Homœopathic Hospital.

(Editor's Note.—The following article is published in place of the usual Clinical Department.)

Introduction.

The late agitation regarding mental hygiene has proved of great popular interest and value, and has, through graphic demonstrations of the Mental Hygiene Society, emphasized many points that bring home with startling vividness the magnitude and great importance of the subject.

I propose to review briefly the evolution of our mental life and to outline what seem to me to be the factors which should be understood in order to intelligently promote this campaign and make it useful and understandable to the laity.

Retrospect.

You are all familiar with the crude ideas of our remote progenitors. We now look with wonder upon the number of hystericals either burned at the stake or tarred and feathered as witches, upon the beating out of devils in choreaics; and on the other hand, we wonder at the worship of paranoid and epileptic persons as leaders or gods. History gives many examples.

The world has ever had a few leaders with philosophical and intelligent minds, and a seething mass of superstitious serfs. The estimate of personal responsibility and the part played by the devil have always been a mystic realm to the masses. The few who possessed insight made slow headway with humanitarian methods against the cruel and warring tendencies of the mass until it had reached biologically that point in its development which was capable of a high degree of education, until it was able to substitute fact for fancy, and cool judgment for mob rule.

Mental Evolution.

Studies in evolution show that the forebrain is genetically a comparatively new thing in nature, the latest improvement, so to speak, in the animal kingdom. The tabulated history of any of its specific activities, language, art, religion, is but a few thousands of years old, and in its beginnings is of the most primitive type. The minds of the great mass of human beings the world around, and even in our own country, still surge with a weird confusion

* President's Address (1913) Mass. Surgical and Gynecological Society.

of fact and fancy, still constantly act upon falsely begotten emotions, the result of distorted intellectual conceptions, and allows superstition and ill-gotten information to supplant honest advice, because they do not recognize it as such, still humble before the supposed God-given power of the priest.

The Brute in Us.

The brute in us lurks ever close beneath the surface, ready to defend its fancy by force. How close the animal still is to this veneered surface we call "civilized" is evidenced daily by the reports of lynching parties and in such a barbarous outbreak as occurred a few years ago in the middle West where a sheriff was chased by a mob of angry citizens as by a pack of enraged wolves, torn apart limb from limb, and the pieces of his flesh fastened to a pole to remain as a warning. Some hours later, a belated citizen who had not had the pleasure of joining in the chase, deliberately rode out to inflict further mutilation to satisfy his vengeance. This was all done in cold blood and because the sheriff had attempted to carry out the law and close up the saloons. And this is one type of mind to which we are to carry mental hygiene.

You may think I am wandering from my subject; you conceive mental hygiene to be purely a hygiene for the intellectual man, and just here, I believe, is the weak link in the chain. Certainly no one will deny that man's mind is engaged in *feeling* quite as much as *thinking*. Feeling is by far the more fundamental of the two. Enlightenment, that is, insight and judgment, are late developmental acquisitions.

Our campaign must deal with the whole subject of mind. Undoubtedly there will be a period later in our development when the forebrain will so predominate that the emotions will become a negligible quantity, but we are still far from this millennium and must deal practically with the factors at hand.

An Ideal Mind.

When a brain, because of the various factors which enter into its upbuilding, engenders a mind with just the right proportions of its various psychic factors, then that mind is well poised and gives just values to experience. Such a mind, of course, is a hypothetical ideal, and would need no instruction in mental hygiene.

Elasticity of Interpretation of Normality.

Now there is a span within which civilized people, according to their advancement, have agreed to call this balance of psychic factors, normal; it is, however, a very flexible, elastic span. So-

ciety says that any mind which makes its possessor compatible with his community, is good enough; and society is very lenient in its interpretation of this compatibility.

If, on the other hand, heredity has not so favored a given brain with acceptable proportions of its psychic factors, emotional and intellectual, or, if by virtue of disease, a once normal mind has lost its balance, and the individual therefore cannot get along with other people, then society must furnish an artificial environment for him for the sake of its own comfort and safety.

Growth of Humanitarianism.

Reforms always move from the greater to the less obvious defects. Gross mental aberration, whether due to retrogressive changes or acquired disease, are now well cared for. Our hospitals for the insane are, on the whole, the greatest monument to progressive humanitarianism that we have yet erected.

But we are ever growing to be a softer hearted race emotionally, and are constantly drawing closer lines about our scholastic and intellectual standards. This is but a further evidence of changing relationship, developmentally, of our mind factors. We have reached that stage where we have the grosser physical facts well in hand and are tending towards finer feeling, thinking and doing.

We seem to have reached the point in education where the mass is ready, in a measure, to throw off superstition and to accept the more delicate truths about the mind which the patient plodders have gradually sifted, tried and proved good in the crucible of science.

Two Primary Causes of Insanity.

And one of the first of these truths is that there are two great primary causes of mental obliquity which may render individuals in varying degrees incompatible with society. These two main causes of insanity are (1) certain hereditary tendencies and (2) acquired disease.

These same factors are, or may be, at any time at work in us all and may result in varying deviations from the standard of the ideal mind.

Purpose of Mental Hygiene Movement.

The purpose of the Mental Hygiene Movement is to teach us all, without fad or distortion, how we may apply the present-day knowledge to lessen these deviations, by controlling the causes. This must be done through popular channels, and in simple phrase-

ology. It is to have no frills nor to be tacked on to any religion, and no one is to reap any profit save that of gratitude.

Really, there is little that is new in the movement, except that having been incorporated in a variety of other reforms in disguise, it has now come out bodily for itself. It voices the natural desire of the better thinkers for a sane setting forth of the entire facts of mental life as far as science knows them, for the betterment of society as opposed to the fractional truths macerated with religion. That religious belief is but one phase of the emotional life, should be made clear and definitely separated from mental hygiene, which is itself at base entirely a form of physical hygiene.

Controllable Causes.

The causes of acquired mental obliquity and insanity are principally alcohol, syphilis, and some metabolic and circulatory disturbances. The latter are less well defined and may have a hereditary coloring. But alcohol and syphilis account for from 40 to 50 per cent. While this is not a new fact and has often been told by the white ribbon crusaders, it is wise to again emphasize it from the new mental hygiene platform.

But, after all, both of these errors are fundamentally emotional errors, and having taught the bare facts, we must still educate the *will* to withstand the emotion or desire.

The Campaign.

First Train The Young Animal To Good Habits. Dr. E. E. Southard says that the first step in a mental hygiene campaign is to secure a pediatrist who is also a psychologist. In such a man we have the ideal starting point, for if the child can be started right, there is little danger of his going wrong later, barring gross idiopathic discrepancies. It is during the first six years of life that the habits which determine the main trend of the future individual are formed. Habits rightly formed at the start and consistently drilled in during early years will solve a large share of our mental discomforts by developing better self-control. Unless we begin at this end, our intellectual instruction will bear but scanty fruit. We must begin by teaching the mothers the importance of habit and of example. For the child is a mimic; one has only to know the child to know much of its parent's habits. If the habits of the home are such as to make it probable that the child starting there will make an undesirable citizen, we already have laws which permit the charity societies to place him in a proper environment. While the old pedagogic methods of flogging and hazing are no longer tolerated, they cer-

tainly served a useful end in self-discipline for which we still lack a substitute. Fear is more fundamental than thought.

Teach Eugenics in Adolescence.

Having taught the mother and established in the child a good set of mechanisms for emotional stability, what shall we teach the individual as he matures, to strengthen his mental grasp? He should learn first what science knows about breeding.

Eugenics, the study of the laws of heredity, though still in its infancy, and at present placing a fatalistic stamp upon life, bids fair ultimately to work out laws for the development of our stock which will go far to solve the problem of inherited neural instability and allow us to breed a race of Amazons.

"Blest are those whose blood and judgment
Are so commingled that they are not a pipe
For Fortune's fingers to sound what stop she pleases."

Sex Hygiene, Physiology, Pathology.

Here also would come sex hygiene, so far as it may be supposed to have a bearing on the mind faculties. And in the schools, such amount of physiology as will permit the pupil to understand the simple principles of the nervous system and the maxim that a *mind* disordered means a *brain* diseased.

While this fact seems to us trite, it is surprising how many intelligent people among the laity still regard mental aberrations as something gone wrong with the soul, or spirit. To their mind, it has no concrete form.

Through what agencies are these truths of mental life to be brought to the public?

Publicity.

The printed page is of course the broadest field, but what is written should be carefully censored and vouched for by a suitable committee. Much harm has been done to over-wrought minds by the misinterpretation of ambiguous statements. Dr. Worcester had to give up his public meetings at the Emanuel Church for this reason.

Exhibitions.

The educational campaign should be pushed along the lines of the tuberculosis work which is beginning to bear such splendid fruits.

An exhibition has already been given in Washington and New York, Boston and several other cities, composed of charts and photographs, setting forth in a diagrammatic way many practical facts. There seems no reason why pathological tissues or wax

forms should not be used to show actual lesions, to give the public mind a more concrete trend. Further elaboration might be had in the form of charts showing the trend of normal and abnormal psychology and its practical application, as in the testing of railroad men and others under the effects of small quantities of alcohol for accuracy of movement.

The Field Worker.

But the greatest work to be done is with the individual, and this is expensive, for it takes much time and training. Field workers must be employed who will tactfully seek out the person in need of instruction along mental lines, and so change his conditions and environment, or otherwise influence his sick mind as to save it before it is too late.

The Psychiatric Clinic.

Such work should be done in conjunction with the outpatient department of a psychiatric clinic. There is a great work for such a clinic though as yet it is so new that its work is ill defined. Frankly, I doubt if there is much of a field for purely psychological work, although psycho-analysis and suggestion seem to help exceptional cases.

But the man doing this work should be the best kind of a clinician and be able to find the underlying physical error and appreciate its relation to the mental obliquity, a field sadly in need of further study.

Finis.

With these various agencies well organized, and duly set in motion, the fruits, though necessarily slow of growth, should be rich and abundant. Not only will the state be able to divert some of the enormous sums of money now spent for the support of *insane hospitals*, etc., to the benefit of the well, and the collective happiness of the community be increased, but each individual will come to say, with Edwin Arnold:

"Not mean, nor base,
But of heaven's best upbuilding is this House
Fashioned for man; the city of nine gates—
Wonderful, subtle, sacred—to be kept
Fair and well garnished;
Graced with ornament
Outside and in, and wardened worthily,
That, in its ordered precincts, angels' wings
May float and fold, and Body help Soul,
As Soul helps Body."

The following article is of especial interest at this time owing to the fact that Dr. Ransom is opening a private hospital at 197 Bay State Road, Boston, for the care of obstetric cases under the "Twilight Sleep" treatment.

THE SO-CALLED TWILIGHT SLEEP.

Twilight sleep is a comparatively new term. The use of scopolamine or hyoscine and morphine in varying doses is nothing new. The use of these drugs in psychiatry, in ophthalmology, in surgery and obstetrics is quite well known.

The physiological action of these drugs, to the homœopathic physician is clear, and the proving of the above named drugs on the normal woman, in labor or not, is equally well understood, which fact practically eliminates empiricism in this treatment.

That this method of treatment in obstetrics came into disrepute as a result of its usage in the early part of this century in Germany, was due to too heavy dosage; and not until later, when men of the profession were willing to devote all of their time to this single line of work, has it been proven more conclusively to us as a rational method and have we as practitioners been willing to adopt it as a part of routine medical practice.

Like many another drug, these remedies if administered in over doses are poisonous, hence must be used with understanding and judgment.

In the sleeping, laboring woman under varying frequency, numbers and sized dosage of scopolamine, or hyoscine, one derives a wonderful picture of the physiological activity characteristic of the entire solanaceæ and a nearer feeling of relationship to our time-honored Hahnemann.

It is quite unnecessary to say to the homœopathically trained physician that the patient under this drug and in his care must be constantly under his medical eye from the moment the first injection is given until the end of the third stage of labor; and yet, possibly, to some like myself, whose materia medica has leaked out a little, a few words of caution, an outline of routine, and the centers where the drug spends most of its activity were well to note.

It acts directly on the motor and sensory cerebraal centres; cardiac and respiratory inhibitory centers; skin activities; glandular secretions; urinary functions; centers of the special senses and temperature, and secondarily on the fœtus in utero.

The routine for carrying out the practice is based entirely on the above and consists in carefully adhering to the following steps, *e. g.:*

1st, Thorough examination of patient before administration of drugs; physically, neurologically and obstetrically.

2nd, Regular dosage to the individual case, always using the least amount possible.

3rd, Absolute quiet.

4th, Exclusion of light.

5th, Fœtal heart sounds and progress.

6th, Chart kept which registers dosage, time,—objective and subjective symptoms—respiration pulse and heart beat and pressure—pains and duration—progress—presentation—cervix.

7th, Delivery same as without drugs.

The advantages to the mother over and above the fact of erasing pain are:

1st, The thorough relaxation of the engaging parts.

2nd, Shortening of first stage of labor fully one half.

3rd, Very rapid and more easily managed delivery.

4th, Rarely any laceration even in primipara.

5th, With small dosage, hæmorrhage is impossible in health.

6th, Kidneys flush off.

7th, Secretion of milk sooner, and maintained better.

8th, In case of laceration no anæsthetic is required.

The above are true only in deliveries under light and infrequent doses—and *with this* the child has a better chance for life because of the stimulating effect of the inverse activity of the drug when not pushed to a poisonous degree.

I quote from a physician in the United States who has probably used this method more than any one else, "With the use of scopolamine and morphine a step has been made toward humanizing childbirth, leaving the mother an average animal to bear her young without pain due to the high organization of modern civilization."

To the profession—This lying-in hospital which I am opening, is for the use of every physician who wishes to become familiar, to investigate, or to experiment scientifically along the line of maternity work under the Freiberg method of painless labor.

Signed, Elizabeth Gaylor Ransom, M.D.,
197 Bay State Road,
Boston.

EDITORIAL.

Books for review, exchanges and contributions—the latter to be contributed to the GAZETTE only and preferably to be typewritten—personal and news items should be sent to THE NEW ENGLAND MEDICAL GAZETTE, 80 East Concord Street, Boston. Subscriptions and all communications relating to advertising or other business should be sent to the Business Manager, 80 East Concord Street, Boston, Mass.

The GAZETTE does not hold itself responsible for the opinions expressed by its contributors.

Reprints furnished at cost.

A GET-TOGETHER MEETING.

As an encouraging sign of the times we would call the attention of our readers to the two short addresses printed on the adjoining page. These were delivered at the Boston Medical Library, October 31, 1914; the one by Dr. Frederick C. Shattuck representing the Suffolk County District Medical Society; the other by Dr. S. H. Calderwood representing the Boston Section of the Massachusetts Homœopathic Medical Society. The occasion was the regular monthy meeting of the Suffolk County District Medical Society, at which the Homœopathic Society became the invited guests, for the purpose of jointly discussing topics of public health interest.

Nothing can be more encouraging than an exhibition of the "get-together" spirit. It is, in fact, the dove of peace materialized into a sane method of settling differences of all kinds with the least possible friction.

Dr. Shattuck says:—"I try to temper my optimism with common sense, but I shall go to my bed tonight feeling that this meeting is one of the many signs of the times which give me faith that the day will come when the terms 'homœopathy' and 'allœopathy' will be as extinct as the dodo; when the semblance of doctrinal discord has vanished and all men of medicine recognize themselves, and are recognized as serving in one and the same army, shoulder to shoulder in the eternal battle against disease"; to every word of which we utter a soulful "Amen" and would add, "God speed the day."

The question is how can *we* "speed it up?" If we consider the administration of internal remedies as a minor part of modern medicine, (and in viewing the whole field of medicine, such as Pre-

ventive, Surgical, Hygienic, and Public Health, it no doubt is), then our differences are but slight, for they relate only to the method of selecting a remedy for a disease or a set of symptoms. But unfortunately, the difference is fundamental, and men are much slower to abandon fundamental beliefs than they are to modify their shades of differences emanating from one common belief. But even that need be no bar to the sensible optimism expressed by Dr. Shattuck.

Many methods have been devised and employed for bringing the two so-called "schools" of medicine together; but all have thus far failed. There is one method, however, which should be the "open sesame" to this most desirable consummation, and that is a co-operative spirit of scientific investigation for the truth's sake. The attitude of the medical mind of today is thoroughly scientific, and whether a man be a homœopath or an allœopath, he cares more for the truth than for partisanship. He is no longer satisfied in imagining he has cured his patient; he is not satisfied to have the patient tell him he (the patient) is cured. He demands some tangible evidence of scientific value that the patient is not only cured but that the selected drug or remedy has cured him. He demands this, not for this special case alone, but he requires such evidence before he can with confidence pursue a like course with another case of a similar nature.

Modern medicine, speaking broadly, has one very weak link in its otherwise strong chain; and that is the lack of a dependable guiding principle in the selection of a drug for a diseased condition. This weakness is most graphically set forth in an article recently published in the "British Medical Journal" (January 3, 1914), by Dr. James MacKenzie of London, who says:—

"The backward state of medical education is well illustrated by the attitude of the profession to methods of treatment. The total absence of anything like science in this department is shown by the great variety of methods of treating any one disease and the extraordinary recommendations that are published by different teachers. . . . Let any one seriously investigate the manner in which therapeutics are taught and exemplified even in those model scientific wards where the chief physician is assisted by some ten or a dozen skilled scientific assistants, and the observing student will find drugs administered and not the slightest attempt made to see if they have the action that the physician supposed them to have. If he cares to investigate the matter more closely and tries to find the ground on which the physician prescribes the drug, it will be found that it is prescribed because some authority has observed that it has a certain effect. If he inquires any further he will find that in the majority of cases, *the evidence for its*

action is based on such flimsy grounds that there is no justification for its use."

"I could say without fear of contradiction that *not one single drug has been carefully studied* so as to understand its full effects on the human system. . . . . We find the teaching profession has never accurately observed them, so that today the principle on which the drugs are administered is not scientific, but rule of thumb and based upon imperfect observations. The reason for this is partly due to the fact that the profession has never understood the meaning of the phenomena which the drug produced." Dr. MacKenzie is one who speaks with authority because of his wide experience and well known ability.

Now the earlier provers of drugs in Hahnemann's time did more to enlighten us upon the physiological action of drugs than have our modern investigators. But those early provers had not our methods of precision in their research, hence, their deductions were in many instances erroneous and misleading. This one weak link in the chain of modern medicine could be immeasurably strengthened by making a thoroughly scientific investigation into the effects of drugs upon the human body. While this investigation could be carried out on the broad plane of scientific research, yet if it were conducted by a commission made up jointly of representatives from the two schools of medicine, it would have a two-fold effect: first, to get at the real facts as to the effects of drugs upon the body cells, through laboratory research; and second, settle once and forever the question whether the law of "Similia similibus curentur" is founded upon a demonstrable basis. No fair-minded man of any school or shade of medical belief could object to such a procedure for determining the truth or error of his belief.

Why should not Boston, which has contributed so much to medical science, undertake this mission of enquiry? She has the workers and the laboratory facilities. We talk unity, and pray for the day in which there shall be no schools of medicine; but are we making any real effort from the right standpoint to hasten the day?

D. G. W.

Responses at the Joint Meeting of the Suffolk County District Medical Society and the Boston District of the Massachusetts Homœopathic Medical Society, held at the Boston Medical Library, October 31, 1914.

Dr. Shattuck.

At the command of our President it becomes my duty—and a very pleasant duty it is to me—to welcome our guests this evening.

As far as I know, this is the first general meeting in Boston of the two so-called "Schools" of medicine for the consideration and discussion of a professional topic. As it happens, the special subject of the evening pertains to public health, in which we are all equally interested and as united

as any body of men can be. Where there are many men there are many minds. The friction of mind on mind feeds and renews the sacred fire of truth of which we physicians are devotees.

There is today no place, no excuse for sectarianism in medicine, though there is and always will be divergence of opinion in details—and are not today the selection of a drug and the size of its dose mere details?

This is the day of preventive medicine, of public, of scientific medicine—and of efficiency. The interest of the public and of our profession alike demand concerted, carefully considered action of trained and intelligent physicians.

I try to temper my optimism with common sense, but I shall go to my bed tonight feeling that this meeting is one of the many signs of the times which give me faith that the day will come when the terms homœopathy and allopathy will be as extinct as the dodo, when the semblance of doctrinal discord has vanished and all men of medicine recognize themselves and are recognized as serving in one and the same army, shoulder to shoulder, in the eternal battle against disease.

Once more I bid our guests welcome, and express the confident hope that this meeting may be the precursor of many others.

Dr. Samuel H. Calderwood.

Mr. President, Members of the Suffolk County District Medical Society:—I am very glad to be present at this meeting tonight, and I thank you for the kind invitation extended to the Society which I have the honor to represent. I also wish to thank Doctor Shattuck for the part he has taken in bringing this about and for the cordial welcome extended by him from the Society. Knowing him and many of you, as I do, I feel that it comes from the heart. I trust that this is but the beginning of better things to come.

Medicine is making rapid strides; Medical education is reaching higher planes; Medical Schools are teaching things which a few years ago were unknown. The homœopathic schools are striving with yours to send out men and women fitted to cope with disease in all of its phases. They are teaching the same anatomy, the same pathology, the same surgery—in fact, the same curriculum, except that perhaps they devote more attention to internal medicine, the study of drug action, the individualization of the case and the administration of but a single remedy,—surely not an impassable gulf between us.

We have an entire army corps of well educated, conscientious men and women working along the same lines with you, striving for the same ends,—the prevention and alleviation of disease. We all realize our limitations so often standing almost helpless at the bedside. It does seem to me that with so many things in common, by getting a little nearer, honestly criticizing but aiding one another, we might present a better front, a stronger force, to repel the ravages of still unconquered disease among our people.

Again, Mr. President and friends, I thank you.

OBITUARY.

James Bachelder Bell, M.D.

James Bachelder Bell, M.D., was born in Monson, Piscataquis County, Maine, February 21, 1838; he died in Boston, September 26, 1914, having rounded out more than seventy-six years of life. His father, who was of English-Irish descent, graduated from Amherst College and was a lawyer by profession. Dr. Bell did not enjoy robust health in his early youth and did not pursue a college course, although he prepared at the Monson Academy. In due season he began the study of medicine with his uncle, Dr. William C. Bell, of Middletown, Conn. He completed his studies in Philadelphia, graduating from the Homœopathic Medical College of Pennsylvania in 1859. Following his graduation he spent more than a year in European study and travel, spending most of his time in Vienna. On his return he practised medicine for a short time in Skowhegan, Maine, his father's home, but soon selected Augusta as his field of work. Here he had a very large and successful practice, for he had in addition to a sound medical training, a genial, attractive personality, a force and certainty which inspired confidence, and a tactfulness that made many friends. In 1880, after about twenty years of practice in Augusta, he moved to Boston undoubtedly through the influence of Dr. William P. Wesselhœft, who in addition to a strong friendship for Dr. Bell had long recognized his ability as a physician. For the remainder of his life, or for thirty-four years, Dr. Bell practised medicine in Boston with a notable success. His private practice was extensive, and his services were in demand by colleagues as a consultant. He devoted himself preferably to surgery for which he was by nature and training well adapted. In 1862 he passed examinations for a surgeoncy in the army, but did not enter active service. He became, however, examining surgeon for the pension office, and during 1867 and 1868 filled the post of city physician in Augusta. Dr. Bell was throughout his life a consistent and ardent adherent to Homœopathy of the strict Hahnemannian order, and his medical influence radiated throughout a wide professional and lay circle. Dr. Bell did things from conviction and was as sound, from principle, in medicine as he was in religion.

His homœopathic affiliations were very numerous. He joined the American Institute of Homœopathy in 1868, the Boston Homœopathic Medical Society in 1881, the Massachusetts Homœopathic Medical Society in 1885, the Massachusetts Surgical and Gynecological Society in 1899, the International Hahnemannian Association in 1881—serving as President of the Association in 1891, and the Boston Society of Homœopathicians at the date of its founding in 1903.

In 1874, while he was still practising in Augusta, Dr. Bell delivered a course of lectures on Tumors at Boston University School of Medicine, and, after his removal to Boston, from 1879 to 1893, he was connected with the chair of surgery of that institution as lecturer.

He became connected with the surgical staff of the Massachusetts Homœopathic Hospital in 1881 and served continuously until 1910 when he resigned active service. He was elected to the Board of Trustees of the Hospital in 1905 where he had opportunity to make use of his hospital experience and his influence in conducting the affairs of the Hospital. In 1869 Dr. Bell had published a monograph on the "Homœopathic Treatment of Diarrhea." It was classical from the standpoint of Homœopathic Materia Medica. This was his chief medical literary production.

As a man, Dr. Bell possessed traits which endeared him to his relatives and friends. He had a sense of humor which coupled with a remarkably retentive memory made him an agreeable host and companion. He was very fond of music and in his earlier days found pleasure and relaxation in playing the flute. He had an artistic temperament, which manifested itself in many ways. He had some facility in the use of water colors and for years spent much of his summer holidays in sketching and landscape

drawing until the avocation became too arduous and interfered with the rest he needed. For recreation he later took up astronomy and found great pleasure in the use of the telescope.

A distinctly human touch is found in his fondness for domestic and pet animals—it being a distressing experience for him to give up his horse for an automobile; also in his fondness for Nature in all her moods, the sea and the mountains appealing to him with more than ordinary force.

His aptitude for mechanical things led him not only into surgery, but to read with great regularity the "Scientific American." The precision of thought connected with mechanics, possibly, aided Dr. Bell somewhat in forming habits of unusual punctuality. It was ons of his habits and successes in life to meet his appointments promptly.

It was naturally in his religious views that Dr. Bell's chief characteristics showed themselves. He was a student of the Bible, was uncompromising in his convictions, and as a conservative orthodox trinitarian was not drawn to "Modernism" in any of its forms. He was strictly "Evangelical" and was honestly outspoken without being controversial. He was practical in his religion and was deeply interested in Home Mission work and especially in the Rescue Mission of Boston. Although not an aggressive prohibitionist, he heartily approved of teetotalism.

Such are some of the characteristics of our late colleague, Dr. Bell, who as a faithful homœopathist, a capable surgeon, an earnest and upright Christian, spent so many years of his active life among us.

J. P. S.

Resolutions Passed by the Boston District of the Massachusetts Homœopathic Medical Society, on the Death of Dr. James B. Bell.

Whereas, In duly appointed time our late friend and colleague, Dr. James B. Bell, has by death been removed from the familiar scenes of his earthly existence and, except in memory, is no longer with us;—

Resolved, That we place upon the records of the Massachusetts Homœopathic Medical Society an expression of the high regard in which Dr. Bell was held by all who were privileged to come into close relationship with him, whether as friend, patient, or professional co-worker.

Resolved, That we sincerely deplore the fact that death has deprived us of the stimulating companionship of a conscientious, high-minded, sympathetic and helpful confrere.

Resolved, That we appreciate the sterling qualities possessed by Dr. Bell, his uncompromising adherence to high standards of private and professional life, his faithfulness in performing allotted duties, his cheerful and encouraging and confidence-inspiring personality, his enthusiastic attachment to the principles of Homœopathy, and his superior ability as a surgeon.

Resolved, That we extend to the family and relatives of Dr. Bell our heartfelt sympathy for them in their bereavement.

John P. Sutherland,
Thomas E. Chandler,
Frederick W. Colburn,
Committee.

Boston, November 5, 1914.

Memoir on the Death of Dr. James Marcus Barton by the Worcester District of the Massachusetts Homœopathic Medical Society.

This Society has been called to mourn the death of one of its oldest and most faithful members, Dr. J. Marcus Barton, who was called hence September 30th, 1914.

He was generous, he was courteous, he was kind. a man incapable of professional dishonesty or deceit of any kind. We shall miss him at our meetings, at which he had been a regular attendant for forty-two years.

We shall mourn him as truly as we shall miss him, and our thoughts go out at this hour to his devoted wife who through all these years has been his loving and courageous helper. May the memory of his gentle and blameless life comfort and cheer her as the years go by.

Resolved, That this Memoir be spread upon the records of this Society and a copy sent to his bereaved widow as a token of the sincere friendship and sympathy of us all.

J. P. Rand, Committee on Resolutions.

November 11, 1914.

BOOK REVIEWS.

Medical Jurisprudence: A Statement of the Law of Forensic Medicine. By Elmer D. Brothers, B.S., LL.B. Member of the Chicago Bar; Lecturer on Jurisprudence in the Medical and Dental Departments of the University of Illinois, and in John Marshall Law School. St. Louis, C. V. Mosby Co., 1914. Price $3.00.

In this day and generation the medical man must know something about law as well as medicine if he wishes to steer clear of a lot of snags and unseen rocks. Each year the physician is confronted with a new crop of legal entanglements. It is a fact that since the ambulance-chasing lawyer has been deprived of a good part of his income, through the operation of the State Industrial Board and the Employers' Liability Act, he is turning his attention to the doctor and studying how he can trap him on a malpractice suit. This book sets forth very clearly all the legal facts affecting the physician. Some on the subjects treated are:

Expert Witness; Cross-Examination of Expert. Dying Declarations. Privileged Communications. Practicing without License; Revocation Not a Judicial Function. Unconscious Patient; Agreement as to Fee; Expert Witness Fees. Damages for Unauthorized Operation; Departure from Agreed Operation. Accident and Negligence; Relation Between the Physician's and the Patient's Negligence and the Patient's Injury; Nurse's Negligence; Practitioner Not a Guarantor of Beneficial Results. Mistake in Diagnosis; Different Schools of Medicine, Criminal Abortion; Pregnancy Not Necessary to Attempt to Abort. The book is a very necessary addition to the physician's library.

A Treatise on Clinical Medicine. By William Hanna Thomson, M.D., LL.D., formerly Professor of Practice of Medicine and of Diseases of the Nervous System in the New York University Medical College; Ex-President of the New York Academy of Medicine, etc. Octavo volume of 667 pages. Philadelphia and London; W. B. Saunders Company, 1914. Cloth, $5.00. Half Morocco, $6.50.

One has but to see the name of Dr. William Hanna Thomson attached to a publication to feel assured that in the reading of it he has an intellectual feast before him. This author's writings have always been characterized by a profundity of thought coupled with a very charming manner of presentation. It is more like reading a good story than studying medicine to read his latest work, "Clinical Medicine." For instance, his opening chapter on Malignant diseases reads thus:

"There is no more remarkable organization in the world than a healthy human body. Every part in it takes its own proper place for the purpose of mutual well being. Neither cell nor tissue exists for its own sake, but rather for the benefit of the entire organism. Not only can the hand not say to the foot, "I have no need of thee," but everything in the body exists for the purpose of ministering to the advantage of the rest. Meantime the cells of every tissue of the body have the property of growth and of multiplication. This is shown by small cutaneous grafts when implanted on a non-healing ulcerated surface of the skin. These grafts begin to grow in all directions, their cells making the true skin until they meet the edges of healthy skin, when they at once cease to proceed further."

His reasoning is simple, yet logical, born of an intimacy with the subject in hand. His long service as a neurologist and alienist has made him a close observer of details. It is this careful detailing of symptoms which makes his book doubly valuable to the student and practitioner who is desirous of becoming both a good diagnostician and practitioner.

The Intervertebral Foramen. An Atlas and Histologic Description Of An Intervertebral Foramen And Its Adjacent Parts by Harold Swanberg, Member American Association for the Advancement of Science. With An Introductory Note by Prof. Harris E. Santee. Illustrated by 16 full page plates, none of which have ever before appeared in print. Chicago Scientific Publishing Co. S. W. Cor. Grace and Osgood Sts., Chicago, Illinois. Price $3.00.

The author has made a very readable book, splendidly and expensively illustrated, on so limited a subject as a "hole between bones." But that "hole," or rather what passes through it, has become the basis for a school of therapeutics. Great and almost extravagant claims have been made for the manifold diseased conditions which may result from intervertebral pressure upon certain of the spinal nerves. While these claims have not appealed to the anatomical common sense of most medical men, yet none could gainsay them without knowing positively that pressure upon those nerves was well nigh impossible from an anatomical standpoint. The careful study and clear exhibition of results made by the author would certainly tend to show that a gross spinal lesion must exist before there can be an appreciable pressure upon the nerves passing through the intervertebral notch.

The "slight displacement of the vertebra," which is so frequently and apparently so easily diagnosed by some men, would of necessity have to be a marked dislocation to affect any pressure on the spinal nerves. The author makes no attempt to prove or disprove any theory; he has simply attempted, through painstaking efforts and scientific study, to show how much room the spinal nerves have in this passage from the cord to the outside of the column.

Modern Surgery. General and Operative. By John Chalmers DaCosta, M.D., LL.D., Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia; Surgeon to the Jefferson Medical College Hospital; Surgeon to St. Joseph's Hospital, Philadelphia; Fellow of the American Surgical Association; Member of the American Philosophical Society; Membre De La Societe Internationl De Chirurgie; Member of the Medical Reserve Corps, U. S. Navy, etc. Seventh Edition, Revised, Enlarged, and Reset With 1085 Illustrations, Some of them in Colors. Philadelphia and London. W. B. Saunders Company, 1914. Cloth, $6.00 net. Half Morocco, $7.50 net.

One cannot read the author's preface to this work without feeling an established acquaintance with the writer. It is so entirely devoid of the conventional, stereotyped, and the perfunctory that it stamps the work at once as being altogether original. He says, for instance:

"In making of this, as of previous editions, I have again and again been in profound perplexity as to whether an alleged discovery is a fragment of eternal truth or a nebulous emanation of chaos. To make many mistakes of judgment in regard to such matters would mean a book rich in misinformation. If all of the alleged improvements of recent years were gathered together, the company would be decidedly mixed, and one would have to be cautious in receiving and in making introductions. In that company we would find the productions of the mistaken enthusiast, of the brilliant confidence man, of the deluded observer, of the conscientious worker, of the dull pretender, of the man with occasional flashes of genius, of the profound scholar, and of the grandee of science."

This one volume work comprises about all on general surgery that the average reader would care to look for. There are no elaborate theories or dissertations of possible methods that have not received the severe test of experience. It has the advantage of the more elaborate, many-volume works, in that it is condensed and crystalized in workable form. It contains all of

the old which has survived the test of time and practical experience, and such of the new as can be recommended with confidence for a further trial.

Manual of Operative Surgery. By John Fairbairn Binnie, A.M., C.M. (Aberdeen) Surgeon to the General Hospital, Kansas City, Mo.; Fellow of the American Surgical Association; Membre De La Societe Internationale De Chirurgie. Sixth Edition, Revised and Enlarged. With 1438 Illustrations, A Number Of Which Are Printed In Colors. Price, $7.00 Net. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut St., 1913.

While there is no dearth of new books on general and operative surgery, yet each new work brings out some of the later features of advanced surgery, and thus becomes a milestone denoting progress. To make any such work one of distinctive value depends upon how accurately, how comprehensively, and how attractively the writer tells his story. Binnie's Surgery shows much original work, and is written in a very attractive and instructive style. He has purposely omitted much of the "stereotyped surgery" such as artery ligations and amputations, which belong more particularly to larger works taking in the "art of surgery." The illustrations while profuse are not of the best quality of reproduction, yet they answer the purpose of affording a clear picture of the descriptive text.

Case Histories in Obstetrics. Groups of Cases Illustrating The Fundamental Problems Which Arise In Obstetrics by Robert L. DeNormandie, A.B., M.D., Assistant in Obstetrics, Harvard Medical School; Physician to Out-Patients, Boston Lying-in Hospital; Assistant in Gynecology, Boston Dispensary. Boston, W. M. Leonard, Publisher, 1914.

Amongst the interesting publications of the year is this series of Case Histories. These are presented in five good sized volumes, wherein the subject is treated, not in a didactic manner of text-book form, but rather by the detailing of certain cases in practice.

In the last volume on obstetrics the author has made an interesting and instructive volume. It is almost superfluous to say that the book is practical, because the relating of actual cases in practice can be nothing else than practical. The degree of instructiveness would depend upon the accuracy of observation, the correctness of recording, and the soundness of deductions. In this volume before us, all of these elements are worked out to a degree that makes it more useful to the physician of experience than a mere text-book could be.

Practical Homœopathic Therapeutics. Second Edition revised and enlarged. W. A. Dewey. Published by Boericke & Tafel, 1914.

This new edition of Dr. Dewey's valuable work is now on the market. With the diseases alphabetically arranged it serves as a very wieldy reference book to the homœopathic physician who wants to refresh his mind on the remedies usually indicated in a given condition. It is very much simpler than wading through the materia medica or a repertory, and often allows a short cut to the indicated remedy which may be verified by consulting the materia medica. The style makes the book interesting reading, and it is therefore conducive to study. The reviewer has had occasion to study it in connection with two obstinate cases, and has found it a most serviceable and reliable guide in the selection of the remedy. This practical test of the work speaks far more for the book than any perusal of its contents. The first edition has been greatly appreciated by those members of the medical profession who seek and profess to practice homœopathy; this second edition deserves the best recommendation as a text book to the medical student, and a time saving implement to the practicing physician.

SOCIETIES.

Boston District of the Massachusetts Homœopathic Society.

The regular monthly meeting of this Society was held on Thursday evening, November 5, with the following program:—

Some Surgical Problems, W. F. Wesselhoeft, M.D. Discussion of cases by Drs. T. E. Chandler and R. C. Wiggin.

Osteomyelitis, J. Emmons Briggs, M.D., with illustrative case.

Cæsarean Section, Charles T. Howard, M.D., with report of an unusual case.

When Shall We Operate Upon Cases of Salpingitis? C. Crane, M.D. Discussion by Drs. A. G. Howard and H. D. Boyd.

The scientific part of the program was followed by light refreshments.

Connecticut Homœopathic Medical Society.

The sixty-fourth semi-annual meeting of the Connecticut Homœopathic Medical Society was held at the Hotel Elton, Waterbury. on Tuesday, October 20, 1914.

The Society was called to order at 11 o'clock by the President, Dr. Frederick E. Wilcox of Willimantic.

The Secretary read the minutes of the annual session, which were approved.

The privileges of the Society were extended to all visiting physicians.

The By-laws were suspended and the Secretary was instructed to cast one ballot for Dr. E. C. M. Hall of New Haven to succeed himself as member of the State Medical Examining Board for the ensuing five years.

Dr. Clarence N. Payne of Bridgeport on behalf of the Committee on Memorial resolutions on the death of our late associate Dr. C. E. Sanford of Bridgeport, presented the same and they were accepted and ordered to appear in the transactions of the Society.

A very general but informal discussion then took place as to the present requirements of the State Examining Boards, the question of reciprocity, etc. There seemed to be a strong feeling in favor of a wider exercise of reciprocity than is now possible under the laws, and also that the present requirement that an applicant for a license must have had a certain course in biology and taken at a certain period in his educational course, would act as a bar to admitting many competent men to examination.

Dr. Bina Seymour of Springfield, a graduate of the New York Homœopathic Medical College and Flower Hospital, 1913, was elected to membership.

The following papers were read and discussed:

1. The Higher Dilutions in the Treatment of Eye Diseases, by Dr. Augustus Angell of Hartford.
2. The Early Treatment of Syphilis, by Dr. E. Everett Rowell of Stamford.
3. The Plan and Scope of the Lumbar Incision, by Dr. Joseph H. Fobes, F. A. C. S., of New York City.
4. Radium, its present status as a Therapeutic Agent, by Dr. William H. Dieffenbach, Professor of Physical Therapeutics New York Medical College and Hospital for Women.
5. Clinical Paper, "One Hundred Emergency Shots," by Dr. Royal E. S. Hayes of Waterbury, read by title.
6. The Abatement of Prostitution, by Dr. Edward Beecher Hooker of Hartford. Owing to the lateness of the hour but few were present to hear Dr. Hooker's able and scholarly paper, and the expression was general that it be presented at the annual meeting in May next, when it is planned to have a program of Sociological Medicine.

The meeting was a very interesting one, and all the papers presented were of a high order and valuable.

The society adjourned after a vote of thanks to those from New York who had so courteously contributed to the interest of the session.

Samuel Worcester, M.D., Secretary.

PERSONAL AND GENERAL ITEMS.

Dr. F. L. McIntosh of Newton, Mass., has taken the practice of the late Dr. James B. Bell, at 176 Commonwealth Avenue, Boston.

Dr. Cosa D. Haskell (1913 B. U. S. M.) has accepted appointment at the State Hospital (Insane), Fergus Falls, Minnesota.

The *Gazette* extends its deepest sympathy to Dr. Thomas M. Strong in the loss of his wife, whose death occurred on November eleven.

Dr. Reuel A. Pierce (B. U. S. M. 1912) has located at Canton, Mass.

Dr. Augusta N. Carlson (class of 1914 B. U. S. M.) has opened an office at 329 Massachusetts Avenue, Boston.

On account of ill health, Dr. Dana F. Downing will not be in his Roxbury, Massachusetts, office during the coming winter.

Dr. Frederick M. Sears of Dorchester (class of 1901 B. U. S. M.) has been taking post graduate work in "Twilight Sleep" in the New York Post Graduate.

Dr. David L. Belding, class of 1913, will give the course in Freshman Physiology at Boston University School of Medicine for the present year, filling the vacancy left by Dr. Downing's resignation. Dr. Belding is also to do special research work in the Evans Memorial.

FOR SALE.—A Harvard surgical chair, walnut frame, leather covering, good as new. Price $20 f. o. b.; $25 if crated. Address "E. E. B.," care *New England Medical Gazette,* 80 East Concord St., Boston, Mass.

Dr. Nelson M. Wood of Charlestown has opened an office at 19 Bay State Road, Boston. Specialty, internal medicine.

Dr. Charles Sedgwick Minot, one of the best known anatomists in this country, died in November at his home in Milton, Massachusetts, at the age of 62 years. He was a graduate of Harvard Medical School of the class of 1878, was made James Stillman Professor of Comparative Anatomy in 1905, and was honored for his long and brilliant service by being sent by Harvard to Germany in 1912 as exchange professor to the Universities of Berlin and Jena.

PRACTICE FOR SALE.—Within ten miles of Boston, a $7000 practice for sale. Fine location in residential town. A great opportunity for the right man. Apply to "Business Manager," *New England Medical Gazette,* 80 East Concord St., Boston.

Dr. Adaline W. Wildes, class of 1881 B. U. S. M., died on December 6 at her home in Roxbury, Mass., at the age of 77 years.

Dr. Marion Coon has removed her office from the Charlesgate, 535 Beacon Street, to 483 Beacon Street, Boston.

FOR SALE at a bargain. A copy of the O. O. & L. Society's Test Drug Proving of Belladonna, in excellent condition, can be bought at a low price; regular price $5. Apply to *N. E. Medical Gazette,* 80 E. Concord St., Boston.

PRACTICE FOR SALE.—In a Massachusetts city, one hour's ride from Boston, a $10,000 practice, including a twelve-room house and a fine garage. A splendid opportunity for the right man. Address "G," care *N. E. Medical Gazette,* 80 East Concord St., Boston.

LIST OF THE FREE PUBLIC HEALTH TALKS
being given at the Evans Memorial, 80 East Concord St., Boston, on Tuesday evenings, at 8 o'clock.

November 17. "The Importance of Public Education in the Prevention of Disease." Allan J. McLaughlin, M.D., Health Commissioner of the State of Massachusetts.

November 24. "The Obligations of Fatherhood." John L. Coffin, M.D.

December 1. "The Public Press and the Prevention of Disease." Hugh Cabot, M.D.

December 8. "Our Children—What Shall We Do With Them?" Edward P. Colby, M.D.

December 15. "The Truth About Twilight Sleep." Edwin W. Smith, M.D.

December 29. "Rheumatism." Alonzo G. Howard, M.D.

January 5. "Tuberculosis." Herbert C. Clapp, M.D.

January 12. "The Immigrant and Public Health." George W. Tupper, Ph.D.

January 19. "Character and Health." Lemuel H. Murlin, LL.D.

January 26. "The Social Value of Preventive Medicine." Robert A. Woods.

February 2. "The Proper Selection and Use of Food." J. Arnold Rockwell, M.D.

February 9. "Avoidable Causes of Insanity." Elmer E. Southard, M.D.

February 16. "Sexual Advice to Men." A. W. Weysse, Ph.D., M.D.

February 23. "Practical Eugenics." G. Stanley Hall, Ph.D.

March 2. "The Church as a Factor in the Prevention of Disease." Dean Lauress J. Birney, S.T.D.

March 9. "Diphtheria." George B. Rice, M.D.

March 16. "Guide Posts for the Expectant Mother." Martha E. Mann, M.D.

March 23. "Heredity in Relation to Sex Hygiene." Eliza B. Cahill, M.D.

April 6. "The Physical Woman and her Enemies." DeWitt G. Wilcox, M.D.

April 13. "The Physiologic, Economic and Moral Consideration of Alcohol and Tobacco." J. P. Sutherland, M.D.

April 20. What Shall We Do in Emergencies?" Clarence Crane, M.D.

April 27. "Milk." Wesley T. Lee, M.D.

May 4. "What is in the Blood." Helmuth Ulrich, M.D.

May 11. "Some Public Health Dangers." J. Walter Schirmer, M.D.

May 18. "Our Flying Foes." W. H. Watters, M.D.

May 25. "Demonstration in Public Health Nursing," under direction of Miss M. H. P. Bridges, Practical instructor of District Nursing Association.

ACKNOWLEDGMENT.

The *Gazette* acknowledges with gratitude contributions from the following physicians in response to the appeal in the November issue for the sick and destitute alumna of the Medical School:—Drs. Adleman, Allard, Allen, Bassett, F. P. Batchelder, H. G. Batchelder, Bellows, J. E. Briggs, Diehl, J. A. Hunt, Lakeman, Lamb-Johnson, Leeds, Patch, J. H. Payne, Piper, W. F. Phillips, F. C. Richardson, J. A. Rockwell, Grace D. Reed, Marion Shepard, S. H. Spalding, Sutherland, V. D. Washburn, Wilcox and Woodman.

We are glad to report, too, that we were able to make quite a substantial shipment of warm winter clothing for Belgian relief work, in good order, mended ready for wear, as a result of the notice in the November number calling for contributions.

THE INDEX.

To our knowledge, this index is the only one published which approximates completeness as regards current homœopathic literature. It contains references to all the original articles in eleven of the leading American and foreign homœopathic medical journals.

Under "Authors" are listed the names of all who have made original contributions to the *Gazette* or to the other periodicals. Under "Subjects" appear the references to all reading matter in the *Gazette* and to all original signed articles in the other journals listed below. All material is indexed under the important words of the title,—cross references being liberally used. Book Reviews, Obituaries and Society Proceedings are indexed under the letters "B," "O" and "S," respectively.

Explanation.

The numbers used refer to the page in the *Gazette.* The black-faced numerals refer to reading matter in the *Gazette;* those preceded by the asterisk indicate original articles in the *Gazette;* the numerals in ordinary type indicate that only the title of the article is given.

INDEX TO PAGES OF MONTHLY ISSUES.

Volume XLIX New England Medical Gazette.

January, 1-56.	May, 237-292.	September, 461-516.
February, 57-116.	June, 293-348.	October, 517-572.
March, 117-180.	July, 349-404.	November, 573-628.
April, 181-236.	August, 405-460.	December, 629-684.

Journals Indexed in Volume XLIX.

As regularly as received, the following journals have been reviewed in the *Gazette* during the year 1914:

Berliner Homoopathische Zeitschrift.
British Homœopathic Journal.
Clinique.
Hahnemannian Monthly.
Homœopathic World.
Journal of A. I. H.
Journal Belge d'Homœopathic.
Journal of Ophthalmology, Otology and Laryngology.
Medical Advance.
Medical Century.
North American Journal of Homœopathy.
Pacific Coast Journal of Homœopathy.

(Continued on Notes and Comments page, page 18, adv.)