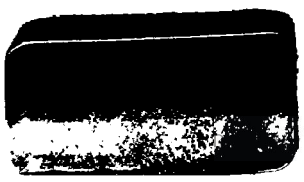

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Alteratives.

BY CHARLES A. LEE, M. D.

AMPELOPSIS QUINQUEFOLIA.

(Woodbine—American Ivy—Five-leaved Ivy—Virginia Creeper—Wild Woodbine.) *Bark and twigs.* Natural Order, *Vitaceæ.* Sexual System-*Pentandria Monogynia.*

THE *Vine Tribe* of plants includes but two genera within the United States, the *Vitis* and the *Ampelopsis.* The *A. quinquefolia,* of MICHAUX, TORREY, and GRAY, is the *A. hederacea* of DECANDOLLE and DARLINGTON; and the *Vitis hederacea* of WILLD; the *Hedera quinquefolia* of LINN; and the *Cisses hederacea* of PERSOON, PURSH, and ELLIOT.

The Virginian Creeper has a stem from ten to forty feet long, diffusively branching, climbing trees and walls, clinging to them by adhesive expansions of the points of the tendrils. The *leaves* are compound, with a common petiole two to six inches long; *leaflets* fine, two to four inches long, and one to two inches wide; *berries* small, dark blue, or nearly black. when mature; the peduncles at the same time becoming bright red, or crimson, found in woodlands, about fence-rows and thickets. Common; flowers in July. The variety *hirsuta* has leaves pubescent on both sides, with ovate leaflets. This plant abounds from Canada to Georgia, and far west; climbing to a great hight on trees, and exhibiting a beautiful crimson foliage in autumn.

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The ampelopsis contains, in addition to the usual organic constituents of plants, a peculiar alkaloid *ampelopsia*, to which its medicinal powers are owing. No accurate analysis of it, however, has yet been made.

It is but recently that this article has come into use as a medicine among regular practitioners, although it has long been known in domestic practice. Its use has been chiefly as an alterative, in cutaneous and scrofulous affections, chronic rheumatism, and secondary syphilis. In small doses, it acts upon all the glandular organs, as a stimulating secernent; and in still larger doses, it proves a hydrogogue cathartic, and has hence been recommended in dropsical cases. An infusion of the bark of the vine, acts very much like the apocynum cannabinum, causing copious watery discharges from the bowels, or by renal and cutaneous secretion.

The *ampelopsin* is a yellowish brown, or chocolate colored powder, of a bitter and slightly saline taste, and is recommended in doses of three grains, as an alterative, "in all cases where remedies of that class are indicated." It is an extract of all the principles soluble in alcohol, and may be used to advantage in some cases; though a fluid extract, or concentrated tincture, would be preferable, as a general rule. The infusion is used by many in preference to any other preparation.

Our own experience with this plant is but limited. We have, however, no doubt whatever that it has very valuable deobstruent and alterative properties, and is worthy of a high rank among our indigenous remedies of this class.

Actæa Rubra, Alba, Arguta.

(Bane-berry—Herb Christopher—White Cohosh.) Natural Order, *Ranunculaceæ*. Art. System, *Polyandria Monogynia*.

The present genus is found in both hemispheres, and embraces a few species only of perennial herbs, with leaves 2-3-ternately divided, and flowers in white, simple racemes. According to Gray, the *A. rubra* and *A. alba* are mere varieties of the European species, *A. spicata*; which, according to Pursh, is the *A. Americana* of North America. Bigelow and other botanists, however, make them distinct species. Nuttall adds a third species, the *A. arguta*, found in Oregon and California; a much larger plant

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than the *A. rubra*, with smaller, dark red berries, and more deeply serrated leaves. The genus *Actea*, as established by LINNEUS, contained several plants, differing materially in essential characters, but it has since been modified by more modern botanists. Thus the actea racemosa of LINN: is the Cimicifuga serpentaria of PURSH, and LINDLEY; the Cim. racemosa of NUTTALL, BARTON, ELLIOTT and TORREY; and the Macrotys racemosa of EATON; while the Actea alba of BIGELOW and BECK is the A. spicata, var. alba of WILLDENOW, MICHAUX, PERSOON, and AITON; the A. Americana var. alba, of PURSH, NUTTALL, BARTON, TORREY, and LINDLEY; the A. pachypoda of ELLIOTT, and the A. brachypetala var. alba, of DECANDOLLE and HOOKER. There is no doubt that the Actæa spicata of Europe, and the Actæa americana of PURSH are the same species, and one of the few plants indigenous to both hemispheres.

The white Actæa, white cohosh, or bane-berry, has a creeping, perennial root; the whole plant is smooth or slightly pubescent, slender, from one to two feet high; stem triangular, leafy, but little branched; leaves ternately decompound, petiolated; *leaflets* ovate, lobed, unequally serrate; *flowers* white, in a terminal, solitary ovate spike; *pedicels* simple, downy, bractate at base; *sepals* 4, deciduous; *petals* spatulate; *stamens* subulate; *ovary* ovate with a round sessile stigma; *berries* purplish black, succulent. The variety *rubra*, red baneberry, has petals about half the length of the stamens; pedicels, slender *berries*; *cherry red*, oval; plant about two feet high. The var. *alba* (white baneberry or cohosh,) has petals rather longer and narrower; pedicels thickened both in flower and fruit; *berries*, *milk-white*, short oval or globular. Plant two to three feet high. The berries of this variety are said to be sometimes tinged with red or purple, very rarely deep red; while in some districts white berries occur abundantly on slender pedicels. These and other circumstances show that both belong to the same species. We have found the *A. alba* more common in Canada, New England, New York, and the Middle States; while the *A. rubra* is more abundant in Virginia, Kentucky, and the Southern States generally.

The whole plant is nauseous and fetid, and derives its name, baneberry, from the supposed poisonous properties of the berries. The root is of a dark brown color, and much resembles that of

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the helleborus niger, both in its physical and medicinal properties; so much so that in Europe one is often substituted for the other. Its sweetish, nauseous odor is speedily dissipated by drying. The taste is bitterish and acrid. LINNEUS states that the root is a violent purgative, analogous in its effects to hellebore, while the berries are poisonous, causing violent delirium, and death; while Dr. LEMERCIER found that they induced a species of intoxication, followed by much disturbance of the cerebral functions, and irritation of the digestive organs. These effects, however, depend chiefly on a volatile principle, which soon escapes, so that the dried root may be given in considerable quantity without causing violent symptoms, or poisonous effects.*

We are not aware that any accurate analysis of this plant has been made. Our experiments show, that it contains fatty matter, resin, tannin, gallic acid, gum, wax, starch, sugar, clorophylle, a peculiar volatile acrid matter, and probably an alkaloid principle, *actæa*. The poisonous effects of the berries and recent plant are owing chiefly to the volatile acrid principle. An etherial extract, prepared from the fresh plant, is the most active, inasmuch as it retains all the active principles, above mentioned.

The physiological effects of this plant have not been fully investigated. The root is known to be violently purgative, while the berries excite violent delirium, followed by death. LINNEUS killed dogs by giving them the fresh berries. LINNEUS'S experiments prove that it possesses narcoctic and intoxicating properties, connected with irritant effects upon the digestive organs; although he states that it also suspends the alvine evacuations. COLDEN found that an infusion of the berries and a tincture of the root, caused a feeling of malaise, attended with cold sweats, without any other symptoms. M. ORFILA states that he often gave from four to six ounces of a decoction of the A. spicata, gathered in May, without observing any bad effects. PLINY, who calls this plant *aconitum racemosam*, does not consider it as poisonous. LINDLEY states that the roots are antispasmodic, expectorant, and astringent, and are reported to have afforded very marked relief in cases of catarrh.

* MERAT & LENS, CHAPMAN, BARTON, PORCHER, DARLINGTON, and others, have confounded the *Actæa* with the *Cimicifuga;* their remarks generally applying only to the latter.

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The actæa not only resembles the cimicifuga in its botanical habits, but also in its therapeutical properties. To anodyne and narcoctic powers, it adds those of a certain and powerful alterative. It increases the functional activity of all the secretory organs, while it invigorates the digestive apparatus. It acts more especially, perhaps, upon the kidneys and skin, although it exerts no slight influence over the hepatic function. It reduces the force and frequency of the pulse, like black cohosh. The diseases in which it has been used with most success, are rheumatism, gout, dropsies, secondary syphilis, chronic cutaneous affections, and chorea. The *saturated tincture* of the root is the best preparation, and this should be given in doses of from ten to twenty drops, three or four times a day. If the dose is too large, it will cause nausea, cold sweats, and great depression, with disturbance of the sensorial functions. The *etherial extract*, made from the fresh plant, is more acrid, but not more reliable than the tincture of the root, gathered in autumn. The fluid extract is a good preparation, but we prefer the saturated tincture. A tincture and extract made from the fresh berries have been used by some practitioners.

Arnica Mollis. A. Nudicaulis.

(Leopard's Bane.) *Flowers, leaves, and root.* Natural Order, *Compositæ.* Sexual System, *Syngenesia.*

The *arnica* is chiefly a native of the more northern parts of Europe and Asia; but two species are found indigenous to North America, viz. *A. mollis*, and *A. nudicaulis.* The first abounds among the White Mountains of New Hampshire and the mountainous regions of New York; has a leafy stem from one to two feet high, bearing one to five heads, with thin, veiny leaves, smoothish when old, toothed; the upper ovate lanceolate, closely sessile, pappus, almost plumose. The *A. nudicaulis* (Ell.) is from one to three feet high, is hairy and rather glandular, with thickish leaves, 3-5-nerved, ovate or oblong, all sessile, mostly entire; heads several, corymbed, showy. Found in damp, pine barrens in the Middle and Southern States. Flowers in April and May, the former in July. The blossoms are a bright yellow.

Our native species are so closely allied to the *A. montana* that the analysis of the latter may with safety be substituted for that

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of the former, nor do their physiological or curative effects differ in any important degree. The organic constituents of arnica, are, resin, a bitter acrid matter (cytisin), volatile oil, arnicina (alkaloid) extractive, gum, albumen, gallic acid, yellow coloring matter, salts of potash, lime, silica and woody fibre. A. Z. THOMPSON has detected *igasauric acid* in it, and thinks it contains *strychnia.*

The *oil*, which is found in the root, is lighter than water, (sp. gr. 0. 94), of a yellowish color, (that of the flower is blue), and has a burning aromatic taste. Sixteen pounds of the dried root yields about an ounce of oil. It is believed that the acridity of the flowers and root resides in the resin (*arnica*), which is soluble in alcohol. The *extractive matter* is nauseous, acrid, bitter, and soluble in both water and spirit; supposed to be analogous to *cytisin.* The alkaloid, *arnicina*, is bitter but not acrid, not volatile, slightly soluble in water, but more so in alcohol and ether. The whole plant has a bitter, acrid, and aromatic taste. The root consists of a cylindrical caudex, two to three inches long, and two to three lines thick, from which many fibres arise. It is brown externally, has a disagreable aromatic odor, and an acrid nauseous taste.

Owing to its acrid properties, arnica, when swallowed, produces a burning sensation in the throat and fauces, nausea, vomiting, pain in the stomach and bowels, and loss of appetite. This is followed, as soon as sufficient time has elapsed for the absorption of the active principle, by acceleration of the pulse and respiration, diaphoresis and diuresis. Its specific influence over the nervous system is seen in the exhiliration, headache, giddiness, and watchfulness which it causes. It also causes heats, rigors and tetanic twiching in the muscles, like strychnia. Some have compared its operation to that of senega, but it more closely resembles that of nux vomica. In large doses it causes vomiting and gripings. It may be called a nervous stimulant, with alterative and tonic properties. JÖRG, in his experiments, found that the flower of the arnica taken in infusion, in doses of from seven to thirty-six grains, in four ounces of water produced a very decided irritation of the whole tract of the alimentary canal, but especially of the esophagus, stomach, and small intestines; the irritation being rather of the muscular tissue than of the blood vessels, of course the article chiefly produced increased contractions of the canal, enhancing but little the secretions into its cavity. It caused also a modi-

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fication in the quantity and quality of the urinary secretions. The irritation likewise extended to the brain; it also produced an acceleration of the circulation, and an augmentation of the cutaneous exhalation. From the irritation set up in the pharynx and larynx, it also caused cough, especially in cases where the pulmonary organs were irritable. The effects of this article continue for twenty-four or thirty-six hours. In very irritable habits, one or two grains of the flower, infused in a spoonful of water are said to produce decided effects; in less irritable habits, three to five grains in half an ounce of water. JÖRG states that when the remedy commences to act, the dose should be repeated only once in twenty-four or thirty-six hours. If we are to be guided by the physiological effects, the arnica will be inapplicable in all inflamatory affections, or those attended with either general or local irritation, particularly when seated in the head or abdomen. In cases, however, of torpor or debility of any of the important organs, especially in low states of nervous and vital power, this article will be found very beneficial. It may be given as a stimulant to the general system in various debilitated conditions, as in typhoid and typhus fevers; in cases of deficient sensibility of the nervous system, as amaurosis, paralysis of the muscular organs, and in languid states of the circulation. It thus rouses the powers of the sensitive, locomotive, and circulatory apparatus, when their torpor is dependent on chronic affections, but may be given with great advantage in torpor of the bowels, connected with diminished nervous or muscular energy. Experience has fully demonstrated the value of arnica in fulfilling the above indications, also its usefulness in some forms of dropsy, chlorosis, amenorrhea, asthenic inflammation, etc. Its use in diarrhea, dysentery, and some other affections, is wholly empirical, but there is not lacking testimony to its value in these diseases.

Externally, a strong infusion causes heat and itching of the skin, but no redness, though the flowers themselves applied for several hours, cause redness which soon disappears, proving to be a mild rubefacient.

Dr. JÖRG concluded from his experiments that the tincture of the root is less efficacious than the infusion, though he recommends the former in doses of from twenty-five to fifty drops, in cases attended with great weakness of the stomach, and atony and

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torper of the intestines; the dose to be repeated every twenty-four or twenty-six hours, provided it does not excite fever. The infusion of the root is said to irritate the alimentary canal less than that of the flowers; its action is slower and milder, and produces less of excitement of the brain, hence thought to be preferable in chronic or colliquative diarrhea, without inflammation, when the indication is to strengthen the intestinal canal without increasing its mucous secretions. The dose, of the root is said by this experimenter to be the same as that of the flowers. Among the most important properties of arnica, may be ranked its influence in stimulating the absorbent system. In regard to its efficacy in removing dropsical effusions, and even induration in various parts of the body, there seems to be a sufficient amount of evidence as to remove all doubt. Arnica is one of those acrid narcotic poisons, which, in an overdose, is likely to produce very dangerous effects, and hence great care is necessary in regard to the doses in which it should be given. STOLL employed this remedy with great success in dysentery; especially in cases where the disease assumed an epidemic and typhoid form. It has also proved very efficacious as an antiperiodic in every form of intermittent fever, the extract being used to the extent of one drachm, in divided doses, in twenty-four hours. In such cases, its powers are said to be quite equal to those of quinine. In Russia it is believed to be a specific in *nyctalopia*, curing it in a few days. In the north of Europe it has long been supposed to exert a beneficial effect in wounds and contusions, particularly of the head, as well as in the disordered conditions of the system consequent on such accidents; hence called *Panacea lapsorum*. Hence also its introduction as an external remedy into the homœopathic practice. There is, however, no reason to believe that the preparations of arnica for external use, as ointments, liniments, lotions, etc., now so generally employed, have scarcely more efficacy than the vehicles in which they are applied. They may prove gently rubefacient, but probably have no other property. I need not add that the long list of symptoms recorded in homœopathic works on materia medica, as having been observed from experimenting with this article on healthy individuals, have no foundation whatever, except in the imagination of Hahnemann, and his weak and deluded followers. In no instance have they been verified, nor does the author

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of the system, or any one else, condescend to inform us what were the preparations, the doses, the intervals of the doses, or any other particulars regarding the experiments by which such wonderful results were produced!

The arnica enjoys a high reputation in Germany, not only as a stimulant in typhoid fever, and other adynamic febrile diseases, in chronic palsy, and amenorrhœa, but also as an alterative tonic in chronic rheumatism, gout, nephritis, and diseases of the bladder, as well as in asthenic forms of dropsy. Here its diuretic action, aided by its sorbefacient and alterative properties, is followed by decided curative effects. A decoction of the leaves is used with much success in psora, and other cutaneous affections. Its homœopathic powers, as laid down by JAHR and other writers, are mainly imaginary. In this respect it does not differ from their materia medica generally.

Preparations.—Of the *flowers* in powder, five to ten grains, mixed with syrup or honey. The *infusion*, made with one half ounce of the flowers to one pound of water; dose, one to two fluid ounces. *Tincture* prepared with one ounce and a half of the *flowers* to one pound of rectified spirit; dose, twenty to sixty drops. The *root* may be used in infusion, made with two scruples of the root to one pound of water; dose, one fluid ounce. The *volatile oil* may be mixed with sweet spirits of nitre, in the proportion of six drops to one half ounce, of which from four to twelve drops may be given in paralysis every three or four hours. The mixture has an agreeable taste and smell. The *decoction* is far inferior to the infusion, and seldom used. An *extract* of the flowers is used in Germany, to the extent of one dram in twenty-four hours; also an *etherial tincture.*

A TRANSPARENT CEMENT for glass is made by dissolving one part of india rubber in chloroform, and adding sixteen parts, by measure, of gum mastic in powder. Digest for two days, and frequently shake the vessel in which these substances are contained. The cement is applied with a fine camel's hair brush.—*Jour. and Trans. Md. Col. of Phar.*

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Physiological and Therapeutical Properties of the Veratrum Viride.

Read before the Dubuque Medical Society at its semi-annual meeting in July, 1861, and published by request of the same.

By G. M. STAPLES, M. D., of Dubuque, Iowa.

I propose this evening to briefly call the attention of the Society to some of the physiological and therapeutical properties of the verat. viride.

This article of the materia medica is comparatively new to most of the profession in our country, while our brethren in England and upon the continent, have been, until recently, quite ignorant of its valuable properties.

Thirty or more years ago, Prof. Tully, of New Haven, was in the habit of recommending its use; and in 1835, Dr. Osgood, of Providence, whose attention was called to this drug by Prof. T., published the results of his investigations in the "American Journal of Medical Sciences;" yet the profession neglected it until after the publication of Dr. Norwood's papers, about the year 1850, and even then it was several years later before it came into extensive use.

So tardily were its merits recognized, that Prof. Dunglison in the last issue (1856) of his "New Remedies" failed to record it; and we may, perhaps, be safe in assuming that the veratrum viride has attracted general attention only during the last five or six years.

This article known by the common names of *Indian poke, poke-root, swamp* or *American hellebore*, belongs to the natural order *melanthaciæ* or *colchicum tribe*. It has been thought by some, especially European physicians, to be identical with the veratrum album of the Alps and Pyrenees, and, on accouut of the violent and uncertain action of the latter they have looked upon the American hellebore with disfavor. Although the physiological action of these two species is in some respects similar, yet it is in the main, quite as different as that of veratrum album and colchicum autumnale. So far as I am aware, no other active principle than the alkaloid veratria has been found in the American hellebore, the same which exists in the European variety. The effects of colchicum were long supposed to be due to veratria until the peculiar principles, colchicia, was detected, and in like manner it is not improbable that further analysis may discover in the veratrum viride some new agent.

The American hellebore is primarily a cardiac and nervous sedative, and secondarily, diaphoretic, diuretic, alterative, expectorant, emetic, hypnotic, and rarely cathartic. The first appreciable effect of a dose of the medicine in health is a reduction of the frequency of the pulse and respiration, accompanied by a feeling of languor and indisposition to exertion, with a desire to sigh. If carried farther, the pulse and respiration are still more reduced, nausea and vomiting supervene, with profuse diaphoresis, increased urinary secretion, and a feeling of utter prostration referred to the præcordia. In disease, its influence

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as a nervous sedative is more apparent in allaying nervous irritability, while it displays its alterative effects in improving the secretions, rendering the mouth moist, and increasing eliminative action.

The prostration, which is rarely considerable until vomiting supervenes, rapidly disappears if the medicine is discontinued, or administered at sufficiently long intervals, and in such doses as to allow the circulation to be revived. It is well known that the emesis is readily controlled by chloroform internally, opium and stimulation. As the debilitating effects of the drug are thus readily controlled, it has become a subject for inquiry whether it may not in a majority of instances be substituted for the older and more permanent depressants. Certain is it that those best acquainted with its therapeutical effects are most lavish of their encomiums, and employ it in a wide range of disease. Unquestionably accelerated circulation plays an important part in the causation and perpetuation of disease. Wherever sthenic inflammatory action exists, it is doubtless a necessary concomitant, if not a sine qua non of such action. The possession then of an agent as manageable and potent for its arrest as are the breaks upon the railway train for their specific purpose, would be an acquisition not easily estimated. My experience with the American hellebore satisfies me that we have in this drug an agent which enables the physician to maintain for an indefinite time, complete control of the nervous and circulatory systems, and furnishes an important desideratum long felt in materia medica.

The diseases in which it has been more generally prescribed are pneumonia, pleurisy, acute bronchitis, peritonitis, puerperal fever, puerperal convulsions, acute rheumatism, neuralgia, and scarlatina. Its therapeutical properties justify the belief that it might be advantageously used in all inflammatory affections of the brain and its membranes, in certain forms of hysteria, irritative fevers, delirium tremens, and it has been suggested in hydrophobia.

Its employment in another class of diseases has been questioned. Veratrum has been condemned in some of our eastern hospitals in asthenic cases attended with much prostration, for instance typhoid fever, on the ground that "we have already a weak, feeble pulse, and the veratrum would only make it weaker." Now, any observer who has carefully noted the action of the hellebore has discovered that the pulse as it was reduced in frequency became fuller and stronger, while the fact that it causes nervous sedation should not be lost sight of. It should also be borne in mind, that the views of modern investigators in reference to the agency of the nervous system in pathology and therapeutics, essentially modify the treatment of disease. It is a fact well known to all pathologists, that similar phenomena often attend totally opposite conditions of the brain, for which no satisfactory explanation has been given. Prof. Wood suggests an analogy in the phenomena of electricity. Positive and negative electricity both produce attraction and repulsion, the spark, shock, and chemical decomposition.

There are functional derangement, watchfulness, etc., attendant upon superexcitation of the brain, while the debility and depression of the nervous system

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which explode into delirium tremens are followed by kindred phenomena. But in either case the continuation of the disturbance enhances the primary affection, and by so much removes the system from convalescence.

Take now typhoid fever. True there is a rapid feeble pulse, but the very excitation and irritation which grow out of the cerebro-spinal debility and increased vascular action perpetuate the disturbance, augment this very debility, and wear out the system by excessive friction. In this condition of things, as Dr. Woodward justly and concisely remarks in an able paper to the "Philadelphia Med. and Surg. Reporter for Nov. 3, 1860," "the secretions are locked up; the brain is oppressed; the heart and lungs are laboring to free themselves from the tension to which they were subjected. Now, here is a condition in which remedies cannot act; but if we can subdue this nervous exaltation, the system becomes relaxed, the secretions are restored, the circulation and respiration become slower, fuller and stronger, the lungs oxygenate the blood more completely, and nutrition and depuration, which had before been impossible, allowed to go on." I have seen typhoidal cases where the morbid action had continued for weeks with the pulse from 110 to 130, speedily convalesced on reducing the cardiac pulsations by veratrum to 70 or 80 per minute. It is not to be denied that the medicine may be carried sufficiently far to occasion a dangerous and even fatal depression, but it is generally inconsiderable until the circulation is brought below the normal standard, and emesis promptly furnishes intelligence of its approach.

It is due, however to candor to state that some eminent authorities have quite condemned the use of veratrum. Dr. Charles A. Lee, in an article upon veratrum, recently published in the *Journal of Materia Medica*, asserts that "the same objections will apply to it as have been brought against aconite, namely, the difficulty of regulating its effects, and its *dangerously-depressing influence even in small doses.* From what we have seen and known of its use," he coutinues, "*we have little doubt that it has caused more deaths in one year than chloroform has since its discovery;* and the cause of death has been scarcely less apparent;" which, of course, means the afore-mentioned dangerously-depressing influence of the drug. This is news, indeed, to us Western practitioners, and the conviction forces itself upon us, that Dr. L. has been experimenting with a novel kind of veratrum, which has not yet found its way to prairie-land. We and our medical friends have extensively prescribed it for a number of years to patients, from infants of a few weeks to old age, and thus far we have never seen an instance nor met with a reported case where veratrum viride proved fatal. The nearest approach to one, is a case communicated to the REPORTER for June 9, 1860, by Dr. Foreman, of Hoboken, N. J. His patient was taken in labor of fourteen hours duration on the morning of the 19th of May. During the night of the 21st puerperal fever, then epidemic, set in, which Dr. Lee, by the way, calls a "*pyogenic affection,*" where he would be quite unwilling to exchange opium for veratrum. She was treated liberally with opiates till the evening of the 23d, with a rapid increase of the gravity of the symptoms, the pulse reaching 160. At 9 P. M.,

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5 drops of the tincture verat. virid., half the strength of Norwood's tincture, were given; at 11, 10 drops; at 1, 4 drops; at 3, by mistake, 25 drops, and at 5, 25 drops, making 70 drops in eight hours, fifty of which were administered in about two hours, fully four times as much as would be regarded heavy dosing in her case. Four hours after the last dose of this medicine, which is as "dangerously-depressing *even in small doses*," when the mistake was discovered, the condition of the patient was alarming, with incessant vomiting, and a respiration of only twelve in two minutes, although the pulse was sixty-six. Ten minims of chloroform by mouth, instantly controlled the vomiting, and under stimulation all unfavorable symptoms, induced by the medicine, disappeared in four hours. The patient had a return of some febrile action, which was controlled by veratrum and morphia, and she made a good recovery.

Dr. Lee regards venesection and antimony safer, more manageable, and more reliable modes of treatment, when anti-phlogistics are demanded. If now, by mistake, he should administer four times the usual dose of antimony, or take two quarts instead of a pint of blood, especially in a "pyogenic affection," would the resulting depression be more readily controlled, or easily recovered from than in the above case, where this "dangerously-depressing agent" was used, which has caused more deaths in one, than chloroform has the world over in fourteen years, and if he should prescribe eight grains of opium instead of two, might he not furnish possibly, even with this favorite remedy of his, an opportunity to some jury to record a verdict of "Died by the visitation of God?"

In the absence of a better hypothesis we submit the following as the law of its action, by which it may be serviceable in cases of debility, under certain restrictions, and at the same time valuable as an anti-phlogistic. *The administration of verat. viride, carried to a limited extent, allays by its action upon the cerebro-spinal system, nervous and circulatory excitability, and places the system in a favorable condition for recuperation; another degree produces profounder impressions by attacking the sympathetic system, which presides over secretion and nutrition, inducing sedation and constitutional depression, evinced by the rapid waste, emesis, diuresis, and profuse diaphoresis.*

Where there is high febrile action, with a quick, full pulse, it is best to produce a decided impression upon the system, by bringing it as speedily as possible under its influence. It is not well to stop short of free emesis. We have found the interval between the doses laid down by authorities rather long in such cases. The drug will display its effect in an hour to an hour and forty minutes. Last winter my boy, two years of age, while convalescing from scarlatina, overloaded the stomach, and was exposed to a current of air which checked cutamous secretion. Febrile action set in, with a restless night. On the following day the tongue was covered with a white fur, no appetite, great thirst, hot, dry skin, and by six P. M., pulse one hundred and fifty, and respiration thirty-six. Three drops of Tilden's fluid extract of veratrum were then given in sugared water. At eight there was less restlessness, and the pulse

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was somewhat reduced, when three drops more were administered. Ten minutes before nine the pulse rapidly sank to seventy; at nine, it reached sixty, and vomiting commenced briskly. Fifteen minutes past nine, the pulse stood at forty-eight, the lowest point, full and strong; the respiration was twelve, the surface cool, and bathed in perspiration. Vomiting continued for an hour and a quarter, with but little cessation, when the patient fell asleep, and rested finely the entire night. Nothing was given to arrest emesis. There was copious secretion from the kidneys during the night and the following day. The child, though weak, required no further treatment, and speedily recovered.

I have found the h llebore serviceable in bilious remittent. If the febrile action is high, it may be given, in connection with a brisk cathartic, so as to reduce the circulation by the time the latter operates upon the bowels. Anti-periodics may then be administered, with a reasonable prospect of causing the disease to abort.

It has likewise proved highly serviceable in the eclampsia of childhood from teething or intestinal irritation, when the convulsions continue after the bowels have been deterged.

In hysteria* it has appeared beneficial in our hands after all approved modes of treatment had failed, in cases where the proximate cause of the paroxysms had disappeared, and still an hysterical disposition remained.

Veratrum is rendered more active and efficient in various diseases by admixture with other medicines. Thus in acute arthritic complaints, veratrum and colchicum, form a useful cembination; veratrum, antimony and ipecac, in the first stages of pectoral disease, and in the latter veratrum, squills and seneka; in cerebral affections hellebore and aconite, and in cardiac hellebore and digitalis.

The usual forms prescribed are Norwood's tincture, and Tilden & Co's fluid extract. Dr. Lee informs us that the solid extract has been considerably used by New England physicians in doses of one-fourth to one-half grain every four hours. Norwood's tincture is made by macerating eight ounces of root in a pint of alcohol, while every fluid ounce of Tilden's represents an ounce of the crude root. We have found a medium dose for an adult male, in an acute case, four to six drops of Tilden, and five to seven of Norwood every two hours. Generally the third dose is required before the system comes well under its influence. If, as will rarely happen, the action of the heart becomes irregular, without much reduction, the medicine should be discontinued and quinine and stimulants administered, or if purges, demulcents and opium are required. We believe, in conclusion, that few physicians who understand the virtues of the veratrum viride are willing to dispense with its use.—*Med. and Surg. Reporter.*

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* Vide Med. and Surg. Reporter, May, 18, 1861, page 158.

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The Use of Stimulants as a Beverage.

A few weeks since we referred to the use of stimulants in the treatment of disease, for the purpose of contrasting the method of Dr. Todd with that pursued by Dr. Gairdner, of Edinburg, in the Infirmy under his charge. The social use of stimulants as a physiological rather than a moral question is still under discussion in England. A community in which the consumption of these articles is so enormous cannot easily submit to the deductions from Dr. Carpenter's total abstinence opinions, and as a consequence we find able and elaborate arguments in defence of the almost universal custom. Without for a moment accepting as true, with reference to our communities, the statement of Dr. Brinton, in his late work on Food and Dietetics, that "it is singular how few healthy teetotalers are to be met with in our ordinary inhabitants of cities," and adding that after an examination of many thousands of individuals, during a period of many years, with special reference to this question, he was obliged to confess that he had met with very few perfectly healthy middle-aged persons successfully pursuing any arduous metropolitan calling under teetotal habits, we can yet see much that is reasonable and sound in an article on the question by Daniel Hooper, B. A., M. B., published in the London *Lancet*, from which we make the following extracts, regretting that we have not room for the whole paper:

"In studying the physiological action of alcohol upon the human body, we must never forget that it is one of that large class of agents whose influence varies, not simply in amount, but in kind or quality, according to the quantity administered; so that the effects of a large dose will be, not a mere *multiple* of those of a small one, but of a total different character. In some few cases, of those of lying or stealing for instance, quantitative difference does not produce qualitative difference; but in the majority of cases it does. A certain temperature produces ice—a higher one steam; a certain weight bends a spring—a heavier one breaks it; a short mountain walk invigorates the body—a long one weakens it; a few hours' study may *in*nervate the brain—a few hours' more may *e*nervate it. And may not, also, a certain amount of alcohol, tea, coffee, &c., strengthen the nervous system, and a larger one weaken it? Or is alcohol mischievous in *all* proportions, whilst tea, coffee, study, &c., are not so? Cause must be shown why alcohol is to be excluded from the class of agents which do good in moderation, and harm in excess. * * * *

"My own observation and reflection have led me to believe that alcoholic drinks are highly useful, if not necessary, articles of regular, daily consumption for vast numbers of persons; but that their kind and amount must be determined by age, sex, constitution, mode of life, and other circumstances. I believe they are more necessary for those whose avocations involve head-work, anxiety, and wear and tear of brain, than for such as lead a comparatively animal life, or one of mere bodily labor. And I think it will be found that the degree of *refinement* of the alcoholic liquor required is in tolerably exact

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ratio to the expenditure of brian-power. The agricultural laborer, for example, is satisfied with ginger-beer, or very poor home-brewed beer; the working classes of London with porter; clerks and shopkeepers with bitter ale; and barristers, judges and members of parliament with wine. In fact, we find a gradation of brain-work corresponding pretty exactly to that of the refinement and alcoholic power of the liquor habitually and instinctively made use of. On the continent, also, we see illustrations of the same fact—the strength and refinement of the wines consumed gradually rising with the exaltation of the brain-work of the consumers. Nor is this owing, as might be supposed, entirely to difference of rank or pecuniary resources; for every man finds the same fact illustrated and corroborated in his own experience. We all find, when on our tours to Switzerland or in the Highlands, where we enjoy pure air, good food and rest, and recretion of brain; when, in short, we are living rather an animal than an intellectual life, we care nothing for, and do not require any sort of alcoholic liquor; whereas, when engaged in our profession or business in London, in the midst of bad air, noise, hurry, bustle, competition and excitement, we are conscious of an unmistakable craving for a certain amount of alcohol with our daily food; the reason being that, in the one case, we are doing everything to refresh and fortify, and in the other, to exhaust and wear out the nervous system. This fact goes far to prove that alcohol, in some peculiar but as yet unexplained way, *does* repair nervous tissue.

"In estimating the value of alcohol, the experience and testimony of healthy persons who use it habitually, and in moderation, ought to be taken into account; also the fact that in all ages, and in every corner of the globe, man has discovered a method of preparing it. There are persons who do very well without alcohol; but this is no proof that it is useless to others. There are country districts where the laborers are strong and healthy without meat, and with beer almost as weak as water; but does it follow that the same fare would suit the London lawyer, barrister, judge, or member of Parliament? No, the two cases are totally different. Men whose labor resembles that of horses may and do live like horses, upon corn and water; but those who are calculating, thinking, and reasoning twelve hours out of the twenty-four, require a more refined sort of food and drink. A ploughboy will look fat and rosy upon his bread and cabbage and hard pudding and water; whilst a Gladstone will require, besides these, good animal food, tea, coffee, and an alcoholic liquor of great purity and refinement. If the brain-work of the London clerk demands a supply of Bass's ale, that of the working statesman will require something approaching œnanthic ether.

"Two arguments used by total abstainers require a short notice. They maintain that alcoholic liquors cannot afford any real and permanent benefit, because they contain little or nothing of a *solid* nature (as proved by evaporation to dryness). But if this proves the worthlessness of wine, so does it of tea and coffee? The fact is, experience has proved that all these agents, in spite of their unsubstantial nature, do refresh the wearied brain and nerves, and impart new life and health to the spirits. Exercise, fresh air, recretions,

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study, tea, coffee, and cigar smoke, are all devoid of solidity; but the argument that they are *therefore* incapable of imparting anything to the human body is still more so. On the contrary, we know that exercise does add bulk and weight and substance to the muscles; that fresh air does redden and enrich the blood; that recretion and study do nourish the brain and nerves; that tea and coffee and alcohol do, at any rate, prevent a waste of the tissues (and probably also directly nourish the nervous system); and that moderate smoking, by soothing and calming the over-busy and excited brain, prevents its exhaustion and waste; in short some of the least material agents have the most real, powerful and beneficial influence upon the human body. Again, teetollers contend that, in the case of alcohol, it is impossible to define moderation and success, since what is moderation to one man is excess to another, and *vice versa*; but this is equally true of salt, sugar, tea, coffee, and many other things, moderation and excess in which they regard as tolerably well defined by common consent. The truth is, there is a certain recognized standard quantity of alcohol, salt, sugar, tea, coffee, &c., which all men agree to call *moderate*, and the difficulty is not greater in the case of alcohol than of any other article of daily consumption. The man who eats a leg of mutton at a meal, or consumes a pound of salt, or drinks a gallon of beer per diem, is looked upon by the public as a monstrosity, an exception, a wonder! whilst he whose daily consumption is one sixteenth of these articles is regarded as an ordinary individual—a type of the masses; in short, the excessive and the moderate man are as well known and as easily recognized as are any of the types and their deviations in the animal and vegitable world. It is idle and absurd to pretend that the boundary line between moderation and excess is indefinable. I believe every man knows where it is, and when he has oversteped it, even although, from long habit and blunted sensibility, the transgression may have little effect upon him. The soldier's rations and the diet-lists of our great hospitals, are so many proofs that *there is a standard* in these matters, well understood, and that public institutions, in their dietetical arrangements, do not contemplate or provide for monsters who eat a leg of mutton and drink three gallons of beer per diem?"—*Boston Med. and Surg. Jour.*—*St. Louis Med. and Surg. Jour.*

On the Palliative Treatment of Asthma.

By T. L. Pridham, Esq., Biddeford, North Devon.

The first on the list is stramonium, the fumes of which may be collected in an inverted glass bowl with a narrow mouth; the bowl being charged to its full is placed under the mouth of the patient, who is directed to inhale to the fullest extent in his power the smoke which has been collected in the bowl, taking care to hold his head away from the bowl, when an expiration takes place. Chloroform, both taken internally or inhaled, is a powerful remedy, but must be employed with caution, and never be administered except by a

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medical attendant. The fumes of nitre paper in a state of ignition, well inhaled, is a valuable remedy. Care should be taken to procure the best prepared from a good chemist. Chloric ether and the tincture of the lobelia inflata will occasionally relieve.—Bicarbonate of soda, as well as chlorate of potass, given in full doses, I have frequently seen produce a good effect. Again, I have seen repeated doses of sulphurate of alum procure relief, the powder being allowed to dissolve on the tongue before it is swallowed in ten grain doses. I have also seen the fumes of tobacco, inhaled as I have recommended in the use of stramonium, relieve, when other remedies have failed; but I do not like this remedy, it produces such deadly faintness and nausea. Small drinks of the best Mocha coffee, made strong, will often procure relief. On two occasions, when every other remedy failed, I succeeded in procuring almost instant relief, by injecting two grains of morphine and a drachm of tincture of assafœtida. These were cases where mental distress appeared to be the exciting cause.

I have often sat at the bed-side of one, suffering from the severest form of of the disease, watching with great anxiety the result of prescribed remedies, and it has not unfrequently happened that many have been tried without relief, the patient all this time gasping for life with sufferings the most intense, when relief has at length come from a remedy apparently the most unlike to procure it—so capricious is the disease, and so uncertain the remedy in asthma cases of this particular character.—*Brit. Med. Jour.—Cincinnati Med. and Surg. News.*

Death from One Grain of Acetate of Morphia.—On the 31st of May an inquest was held at the Bank of England Tavern, Cambridge-place, Paddington, on the body of George Cooper, aged about forty-five. It appeared from the evidence that the deceased had been an out patient at St. Mary's Hospital for pains in the face, caused by carious teeth. On the Wednesday week preceeding, he had been ordered by Dr. Sieveking, whom he had visited at his own residence, to take a pill, which he obtained from the assistant-dispenser at the hospital. This was the ordinary pill, kept ready made, containing one grain of acetate of morphia. He took it about 12 o'clock at night, and about 3 o'clock he complained, and expressed regret at having taken it. He shortly afterward fell asleep, and his wife could not succeed in waking him until 8 o'clock at night, when he appeared very wild, and made a strange noise in his mouth. He was removed to the hospital, and, notwithstanding the remedies used, he died about 4 o'clock P. M. A post-mortem examination was made by Mr. Rogers, who deposed that the urine was made albuminous, and that the kidneys were in a highly diseased state, the morphia acting upon which had been the cause of death. No suspicion had been entertaintained that the deceased was suffering from diseased kidneys. The jury returned the following verdict:—"The death had been caused by misadventure, congestion of the brain having been produced by morphia taken as a medicine."—*Dublin Med. Press.—Brit. Am. Jour.*

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[From the American Medical Monthly.]

On Pulsatilla.*

By JOHN C. PETERS, M. D.

False Vertigo.—Lowenhardt has found it rapidly and certainly useful against this form of disease, which is said to have been first described by Marcus Herz; it is supposed to have its seat in the organs of sight, and is characterized by a feeling of tension in the lids, which commences in the external angle of one or both the eyes, and is attended with an appearance of glittering or glimmering, during which all objects whose rays strike the eye from that side seem to have a very quick, waving motion. Hufeland describes it as if one were looking through moving water, or through an atmosphere which is very much heated and quivering, and through which a number of bright-colored, circular or serpentine objects are in violent motion.

It is a marked peculiarity of this disorder, that there is no accompanying dizziness, no confusion of the mind, no obstruction of thought, no turning around of objects, or fear of falling; all of which serve to distinguish it from vertiginous attacks arising from derangement of the stomach, or of the brain. As a general rule, only one eye is affected at a time. Herz attributes the paroxysms to suppression of the functions of the skin. It yields to a few grains of extract of pulsatilla, although belladonna, digitalis, opium, and common anti-bilious and anti-gastric treatment are of no avail. Lowenhardt gave one-grain doses of the extract every night and morning.

Among the Germans, pulsatilla is used almost exclusively in diseases of the eyes, especially those of a rheumatic or arthritic nature, or arising from the sudden suppression of some accustomed perspiration or eruption. Sobernheim says it is more useful in *Amaurosis paralytica rheumatica* than in any other affection of the eye, and that its well-deserved great reputation is based upon its usefulness in this disease. Graefe gave one-grain doses of the herb, mixed with a sufficient quantity of the extract, to be conveniently made into pills, from one to seven times per day. He usually gave a course of at least sixty pills, but sometimes preferred table-spoonful doses of an infusion of from one to three drams of the herb in eight ounces of water. Rust relied upon twenty to sixty drop doses, three times a day, of a solution of one-half dram of extract of pulsatilla in one-half oz. of wine of antimony. In opacities of the cornea, and also in commencing cataract, Graefe used an infusion of three drams of the herb in six ounces of water, to which one grain of hydrarg. muriat. corrosiv. was added.

* In justice to the author, as well as to the reader, we should state that this is only the conclusion of the article which originally appeared in the *Med. Monthly*. It was our intention to have published the article entire, but the journal containing the first portion having got mislaid or lost, and not having time to procure another copy from the publishers before going to press, we print only the last half, believing that this alone is of sufficient interest to commend itself to the profession.

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It is well known the celebrated Baron Störck first introduced pulsatilla fully into the regular practice of medicine, more especially in diseases of the eye.

Störck used seven or fourteen grains of the extract of pulsatilla, rubbed up into a very fine powder in a marble mortar, with one dram of sugar of milk; of these preparations, he gave from twenty to thirty grains, three times a day.

Case 1.—A man, aged twenty-one, after having venereal ulcers of the throat, was attacked with syphilitic ophthalmia of both eyes. He could see a little, indistinctly, with the right eye, but the left was entirely blinded by an albugo; the right parotid gland was also enlarged and hard. Mercurials and antimonials were given, without benefit. The weaker powder of pulsatilla was given by Störck, in scruple doses, every night and morning. The remedy caused increased pain in the eyes and lachrymation, followed by salivation and improvement of sight; when the salivation ceased, an offensive diarrhœa occurred. After this treatment had been followed up for five weeks the patient could see quite well with the right eye, and better with the left, as the albugo had commenced to disappear. Then the same doses were given three times a day, followed by a renewal of the pains in the eyes, increased lachrymation, and more profuse and frequent discharges of urine; but, in a few days, the pains in the eyes lessened, and the parotid began to soften, and, at the end of two months, there was a still greater improvement of the sight. The strong powder was now given, in thirty-grain doses, three times a day, and in four months the patient was quite cured, both of his eye and parotied affection.

Case 2.—A woman, aged twenty-eight, had been blind for several years, with a thick *pannus* over both, but more particularly over the whole left cornea. The weaker powder was given, in twenty-grain doses, three times a day, and, in fourteen days, the opacity began to grow thinner, and the patient could easily distinguish light from darkness. The stronger powder was now given, in fifteen-grain doses, three times a day, and in six weeks more the right eye was quite restored, and there was every prospect that the left would be so also. The remedy caused violent pain about the eyes, and slight diarrhœa.

Case 3.—Scar and opacity of the whole left cornea, remaining after the bursting of an abscess, in a girl aged twenty. Many remedies had been used, without benefit, when the weaker powder was given as above; she was cured in two months. Soon after the commencement of the treatment, her *mensis, which had been suppressed for a year, returned*, and continued to do so regularly.

Case 4.—Complete amaurosis of the right eye for twelve years, and of the left eye for a year and a half, in a woman aged thirty-nine; many remedies had, of course, been used in vain. The weaker powder was given as above, followed by the occurrence of very violent, rending, lacerating, boring, and lancinating pains in the eyes, and profuse lachrymation. In the course of three weeks, *her mensis, which had been suppressed for several years, returned again freely;* at the end of six weeks she could plainly distinguish light, and her pupils had become movable; at the end of five months, she could see objects

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with her left eye, could distinguish colors, and was able to walk alone; she also began to see a little with her right eye. Her mensis continued to return every three weeks.

Case 5.—Cataract for seven years, in the left eye of a man, aged sixty-two; his right eye was also very weak, and had gradually become so dim, that he not only could not attend to his work, but could not walk alone in the street. The stronger powder was given, in thirty-grain doses, three times a day, and, in twelve days, he could work a little with the right eye, and also distinguish candle-light with the left.

The equally celebrated Kopp cured a case of erethismus oculorum, or morbid sensibility of the retina, with ten-drop doses of the strong tincture, three times a day; no aggravation or other unpleasant effects were noticed. Also severe pains in the eye, in another case, with the same doses. This experience would encourage us to use the remedy in some severe eye affections, and it is a question whether smaller doses would effect equally good cures.

It will be noticed that Störck frequently alludes to aggravations, supposed to have been caused by pulsatilla, when used against some forms of disease of the eye; this was a favorite notion with this distinguished physician, and he frequently refers to them while treating of other remedies; thus, in speaking of aconite, he says it is apt to cause pains in the bones and joints, which disappear after a more or less profuse perspiration sets in, accompanied by a somewhat copious flow of dark urine. It is probable that Hahnemann adopted many of Störck's views, especially those about aggravations, and the preparation of remedies by trituration with sugar of milk.

Pulsatilla is supposed to act upon many of the *mucous* membranes like senega, tolu, iodide of potassium, cubebs, and other remedies. According to Stillé, Wendt, Chelius, V. Ammon, and other German writers, attribute to senega an influence over scrofulous inflammations of the conjunctiva and cornea, including those which involve a rheumatic or gouty element. Hartshorne and Chapman, of Philladelphia, regarded senega as one of the most active, certain, and valuable of emmenagogues. It is saying but little when we assume that pulsatilla is far more efficient in both these respects.

In addition, pulsatilla is supposed to exert a specific action upon the mucous membranes of the ear, stomach, and bowels, bladder, urethra, and vagina.

Cases of recovery from disease of the ear like the following are not uncommon. A lad, aged sixteen, from injury of the ear and taking cold, was attacked eighten months ago with pain, soreness, and bleeding from the right ear, followed by discharge in a few days; the pain was so severe that he slept but little at night for a month or two; the paroxysms of pain lasted for an hour or more, followed by an intermission of fifteen or twenty minutes; the ear discharged profusely of blood and matter for two or three days, about every two weeks, followed by a scanty discharge for some time, succeeded by soreness, redness and tenderness over the mastoid process. He gradually lost his hearing in the right ear, and three months subsequently in the left ear, although the latter never discharged. Both ears had been syringed carefully

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and repeatedly by his former physician, and blisters, which he roughly computed at about 150 in number, had been applied behind both ears, without improvement. When he came under my care, five and finally ten drop doses of tincture of pulsatilla were given twice a day, and a solution of one dram of tincture pulsatilla in seven drams of glycerine was freely dropped into both ears, night and morning. Improvement commenced quickly, and in three months there was an entire restoration of hearing in both ears, and all tendency to paroxysms of pain and discharge had ceased. The recovery remained permanent eight months afterwards, at last report.

As regards its action upon the bronchial mucous membrane, J. de Ramm has found it more useful in whooping-cough than belladonna or opium; and Lobenstein Lobel claims to have had the same experience, although he gave it in combination with valerian and fennel. De Ramm used it simply in doses of $\frac{1}{2}$ or $\frac{1}{3}$ grain of the extract, 3 or 4 times a day, for small children, and from $\frac{1}{4}$ to 1 grain for those about 5 years of age; to older patients he gave $1\frac{1}{4}$ or 2 grain doses. It has repeatedly happened to me to remove tedious, loose coughs, with much rattling of mucus, but comparatively little expectoration with this remedy; I have generally used from 1 to 2 drams of the tincture in a tumbler of water, given in 1 or 2 table-spoonful doses. If, in addition, there is suppression of the menses from taking cold, both affections will often pass away under the use of pulsatilla. Even when there is a tendency to chills, fever, and perspiration, pulsatilla will often avail, although small doses of aconite, in alternation or combination with it, sometimes proves more efficacious.

Full doses of pulsatilla or dulcamara, with or without the aid of aconite, will often relieve severe catarrhal affections of the eyes, nose, and throat, such as severe attacks of influenza, &c.

Epithelial Gastric Catarrh is often associated with biliousness, and generally mistaken for it; it is characterized by a thick whitish or yellowish coat upon the tongue, as incapacity of the stomach to digest its contents, and an irritibility of the viscus, which tends to reject by vomiting these undigested substances. At the same time, although the bile may be secreted in its usual quantity only, it is often forced up into the stomach by the effort of retching, and much of it is thrown out with the rejected food and mucus, or else passing downward, and little or none of it being absorbed by the intestinal mucous membrane, it is excreted in the shape of more or less copious bilious stools, intermingled with large quantities of mucus. According to Chambers, the frequency with which bile is vomited, the common occurrence of large quantities of bile in the diarrhœa of gastric catarrh, have acquired for the disorder the popular name of "bilious attack." It is caused, possibly, by an extension of the catarrhal state from the gastric mucous membrane to that of the duodenum, and perhaps even to that of the gall-ducts themselves. It has been conjectured that there is an increased secretion of mucus from the surface of the gall-ducts, which, mixed with the bile, makes the latter somewhat unsuitable for reabsorption, which is further impeded by an excessive secretion of

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mucus along the whole length of the small bowels. In addition to other remedies, pulsatilla, dulcamara, and the muriate of ammonia will be found exceedingly useful remedies.

Pulsatilla is consequently a main remedy in *chronic catarrh* or *mucous flux of the stomach.* According to Chambers, the symptoms of this disorder seem closely proportioned to the quantity of mucus secreted, and consequently to the extent of membrane involved; where these are slight, the difficulties of digestion often escape the notice of both patient and physician; there may only seem to be a state scarcely distinguishable from general atony and anæmia, viz: a certain want of appetite and deficiency of nutrition, or an incapacity of benefiting by the food taken. But in those cases in which the whole or greater part of the stomach is thickly coated with tenacious mucus, sufficient to interfere with the action of the gastric juice upon the food, then symptoms of a well-marked character manifest themselves; there is a sensation of uneasiness, and sometimes of pain in the epigastrium, coming on mostly at times when the stomach is empty; there may be a craving for food, but no sooner is any taken than it excites a feeling of weight and distention; in other cases, there is a sense of emptiness and sinking in the stomach, which leads the patient to take food, although there may not only be no appetite, but an absolute disgust for all of it. At times, quantities of glairy mucus alone are vomited up; at others, the food, enveloped in mucus, is not interpenetrated by the gastric juice, but takes an acetous fomentation, attended with acid eructations, heartburn, and a painful accumulation of flatus in the stomach, so that the disstress resulting is of a spasmodic or distensive character, apparently relieved only by eructations or other discharges of wind. In cases of long duration, there is a dull lauco-phlegmatic aspect, and a feeling of weakness, with coldness of the extremeties, and a small, feeble pulse. The patient is desponding, easily depressed; not absolutely melancholic, but easily disposed to dwell upon the gloomy side of things. It is in this class of cases that *cubebs*, aided or not by bismuth and prepared chalk, is so useful; but pulsatilla and benzoate of ammonia will cure many cases without their aid, especially if the doses are given when the stomach is empty of food.

Pulsatilla is also useful in some eruptions produced by the use of improper food, and is not a useless remedy to prevent attacks of gout, arising from the same cause. It has a continental reputation in some chronic skin diseases, in some rheumatic and arthritic affections, and even in syphilitic bone-pains. It will often render the excessive and routine use of colchicum unnecessary, and when combined with, or given in alternation with it, will render smaller doses more efficacious.

Hypodermic Inoculation.—A simple mode of introducing a substance hypodermically is to puncture the part quickly two or three dozen times, the lancet being dipped in the substance used, as morphia, made into a thin paste. (M. Lafargue, p. 285.)—*Eclectic Med. Jour.*

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Styptics upon the Battle-Field.

By JOHN M. MAISCH.

The following remarks are offered from a pharmaceutcial and chemical point of view, and may, perhaps, differ from the views of a surgeon to a certain extent. I will remark here, that it is not my province to make suggestions for the proper treatment of gun-shot and similar wounds, but that I merely desire to speak about what the pharmaceutist is able to furnish in case the field-surgeon feels the necessity of arresting profuse bleeding.

Though bleeding of wounds may occur frequently in the ordinary practice of the physician, there is undoubtedly no place where it can be observed and studied oftener than upon the battle-field. The attention of the surgeon is here claimed by wounds of a slight and of the most fearful character on every part of the human body, from the head down to the foot, and inflicted by all sorts of weapons, from an ordinary knife and a pistol ball, to a sabre and the fragments of an exploded shell.

Whether or not it is desirable in all cases to arrest the bleeding before the removal of a ball or of the splinters of a bone is attempted, I know not; but it is at least very frequently desirable before the attempt is made to dress the wound properly. This object may be arrived at in two ways: either by the ligature of the ruptured artery, or else by the application of some foreign body.

Independently of the difficulty occasionally experienced in getting a sufficient hold of the blood-vessel previously to tying it, the time consumed by this operation is usually more than a surgeon can afford, when many others claim a like share of his attention; want of time, therefore, requires him to forego this mode, and rather have recourse to the second way, that of applying some foreign substance.

Mostly, I should judge, from the limited experience I have had, reliance is placed on simple bandaging, perhaps with a suitable compression hurriedly made; but besides the bandage, the substances used for this purpose may be of a twofold nature; they may either act as absorbents—and then their action is merely mechanical—or astringents or a styptic—and then their action is chemical. In both these latter cases the ejection of blood is arrested by its coagulation, and the ultimate object of all mechanical and chemical styptics must therefore be a rapid promotion of its tendency to assume the solid form.

It is well known that the presence of a large amount of oxygen, of atmospheric air, increases the coagulability of the blood, and I am of the opinion that a number of what may properly be called mechanical styptics, merely act in this way—namely, mix the blood with a sufficient amount of oxygen. If some lint is gently pressed upon a bleeding surface, the fibres will readily absorb the blood, and when drawn up by capillary attraction, it constantly comes in contact with fresh portions of atmospheric air, in proportion to the exten-

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sion of its surface. This circumstance alone will promote the coagulation, and the tendency is increased by the presence of the numerous fibres, the separation of solid bodies from their solutions being always accelerated by the presence of solid substances, and particularly when very angular or irregularly pointed.

Porous bodies have the power of absorbing a large amount of gases, among which is, of course, a corresponding proportion of oxygen, if they have been exposed to the atmosphere. This alone will explain the coagulation of blood by substances like spunk, the prepared inner portion of boletus igniarius, though another circumstance must here be considered, exercising, undoubtedly, an influence not to be overlooked, namely, the expansion of spunk in consequence of its absorption of oxygen, and the pressure which it must necessarily exert upon the rupture of the blood-vessels.

Sponge acts in a precisely similar way ; but inasmuch as its pores are much larger than that of spunk, it is unable to condense upon its surface so much oxygen, and it consequently when used for absorbing blood, brings the latter in contact with air by spreading it over a greatly extended surface; but in absorbing a liquid, the pores of sponge are filled by it, and a corresponding quantity of air is actually displaced, so that blood, while at first coagulating from the effect of the contact of oxygen with its thin layer, soon presents to the influence of air merely a liquid column, the solidified surface of which is forced upward by the pressure of the blood exuding from the blood-vessels. For these reasons, if sponge is used as a styptic, it must be in the dry state, free from moisture. In this condition it has condensed in its finer pores the largest amount of air, and when becoming moist swells up, and by the pressure it may thereby exert, will be apt to close the blood-vessels and stop their discharge.

Penghas-whar-jambi,—the interesting substance with that barbarous name, derived from a Cibotiune, a fern of Java, consits of thread-like, shriveled cells, through the walls of which the blood is absorbed, causing simultaneously an expansion of the whole cell. It is possible that simply by this difusion, the fibrin of the blood may pass into the insoluble state, and that by this action in connection with the influence of oxygen over an extended surface, the exuding blood is suffieiently coagulated to arrest bleeding, though much of the effect is undoubtedly due to the enlargement of the cells, and the consequent pressure upon the ruptured vessel, inasmuch as the simple application of the loose substance has comparatively little effect, and as it has the desired result in the shortest time, if it is rolled together and applied with a gentle pressure. The explanation by many physicians of the modus operandi of these paleæcibotii is that of a simple filtration, whereby the blood is deprived of its fluid portion, leaving the corpuseles behind in a mass. It is most likely that all these causes combined lead to the great activity of this last mentioned hemostatic, and that filtration exercises its influence likewise in the other cases. It is certain, however, that all the substances named, together with some others popularly imployed, like the web of the common spider, act mechanically, and

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are entirely or nearly destitute of soluble constituents, or of bodies which exert a chemieal influence on blood.

Passing over to those styptics which act chemically, we may divide them into those of organic and inorganic origin. The former, almost without an exception, act by virtue of the tannic acid they contain, and are among the crude drugs chiefly represented by galls. Though we find tannin in most of the living plants, there are but few vegetable products, which in their crude state might be considered fit for arresting hemorrhages, and these few are confined to the natural orders of polygalaceæ, (rhatany,) leguminosæ, (catechu, etc.,) rosaceæ, (tormentilla, etc.,) polygonaceæ, (bistorta,) and cupuliferæ, (oak.) Of all these, galls are best adapted for the purpose, on account of containing about 50 pr. ct. of tannin; the pure tannin, that principle of galls and the other astringent vegetables, on which their activity depend, is more preferable.

Tannin and the inorganic hemostatics produce a coagulation of the blood, by forming insoluble compounds with the albumen, and it is probable, likewise, with the fibrin dissolved in the serum; the suspended blood corpuscles are enclosed in this precipitate, the bulk of which is thereby considerably increased. If we remember that albumen forms insoluble compounds with the oxides of most heavy metals, the inorganic bodies useful for this purpose are at once pointed out, and it follows as a matter of course, that soluble basic metallic salts are most appropriate for this purpose, inasmuch as on combining with the albumen, no or but little acid is set free, which, when present, in larger proportion, might tend to redissolve the precipitated albuminate.

The true cauterizing agents, like nitrate of silver, chloride of zinc, etc., are apt to proceed a step further, and destroy the albumen and other organic bodies, forming insoluble compounds; on account of their being used most generally in the dry form, and because of their ready solubility, their action is very decided and quick, but likewise circumscribed.

Of the other inorganic compounds, which by coagulating the albumen, act as hemostatics, those of a poisonous nature might have a dangerous result, are are for this reason scarcely used. Such are the salts of copper, lead, mercury, etc. Mostly employed because free from poisonous qualities, and very decided in their action, are the salts of iron, any of which may be used, though with a difference in the result, owing to the readiness with which the salt parts with its base to the albumen. This accounts for the almost instantaneous effect of the basic ferrio sulphate, which gets, after its discoverer, the name of Monsell's salt.

It is prepared from material easily attainable everywhere; it is readily soluble, may be obtained in a solution containing nearly 50 per cent. of its weight, and may be kept in a dry state, attracting but little moisture in ordinary weather. Capable of being applied in both the liquid and dry form, of being readily extended over a considerable surface, and of being not injurious to other unruptured parts, it is particularly fitted for circumstances in which a large number of wounds of the most different kind claim the attention of the

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surgeon in an unusually short space of time, as is the case upon the battle-field.

There is a possibility of a wounded man bleeding to death upon the battle-field before the surgeon under the pressure of his attentions can find time to bandage his wounds. I conceive that it is in such cases, particularly where styptics might be employed with advantage until after temporary bandaging the wounds, their proper treatment might commence after the removal to the hospital; styptics would not interfere with the subsequent removal of a ball or other foreign bodies, but would retain a portion of strength, unavoidably lost by the loss of blood, while it is necessary for any possible subsequent operation. In cases of amputations in the open field, few assistants and little time will be allowed to apply ligatures to the various blood-vessels. Would not a powerful styptic be in its proper place here?

The question then would recur on the kind of styptic to be employed.

All those acting mechanically by division and filtration, will lose their properties on becoming more or less saturated with water, or any other liquid; even mere exposure to a damp atmosphere will impair their absorbent powers. Whatever their superiority in some respects over the chemical hemostatics may be, this influence of dampness alone condemns them, and must limit their use chiefly to the hospital. Their bulk is another objection, as is also the difficulty of obtaining the most active ones in a sufficient quantity to supply the demand of a large army.

We shall have to fall back therefore on preparations which the pharmaceutist may furnish from his laboratory in any desired quantity, and there is none more adapted for such a purpose than the dry Monsell's salt, and its aqueous solution. It seems to me that every army surgeon ought to have a supply of the former for use in the field, and if not included in the army supplies, that he ought to prepare a sufficient quantity, as every place where a fire can be built, will answer, provided a porcelain capsule or a well enamelled kettle is at hand. It may even be considered a question of importance, whether it is practicable to furnish each soldier with a small quantity of this salt, to be used by him for stopping hemorrhage previous to the attendance of the surgeon. One ton of this salt would be more than sufficient for supplying each individual in the army with the requisite quantity.—*Med. and Surg. Reporter; Cincinnati Med. and Surg. News.*

Triticum Repens in Irritable Conditions of the Bladder.

Henry Thompson, Esq., highly extols an infusion of *Triticum repens* in irritable conditions of the bladder. The form he has adopted for administering the remedy, is as follows:—

"One ounce of the dried and cut stem is infused in a pint of boiling water for an hour. The liquor removed by straining has been given, unmixed with any

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other remedy, in quantities varying from twelve ounces to a pint during the twenty-four hours, in several doses. The taste of the infusion is rather agreeable than otherwise; it produces no nausea or derangement of the stomach.

"From notes of the numerous cases in which I have employed it, making at the same time due allowance for the effect of other sources of benefit to the patient, I have arrived at the following conclusions respecting the indications for its use:—

"In vesical irritability produced by inflammation of the prostate and neck of the bladder; in severe gonorrhœa, and especially when the inflammation extends backwards; in the pain and spasm caused by calculus, and by aggravated stricture of the urethra, as well as in some cases of obscure disease of the bladder, the good effects of the infusion have been very marked, and it has proved far more efficacious than the buchu, which may fairly be esteemed the most widely applicable and generally useful of our officinal remedies of this class in such circumstances. In cases of prostatic enlargement in elderly patients it has been of service, but less frequently than in the conditions above named. It has also afforded great relief in renal calculus. A medical man practising in London, who has thus suffered, and very severely, during many years, tells me that 'after trying every approved remedy, it is the only thing that has rendered life endurable.' This is one of four similar cases in which it has been more or less useful.

"In short, wherever micturition is very frequent or painful, depending on hyper-sensibility of any part of the urinary passages from acute or subacute inflammation, with signs of its presence in the urine itself, the symptoms are mostly materially relieved, and the urine becomes clearer. If improvement is produced at all, it is generally very soon after commencing the medicine, and if none can be observed in four or five days, it is not worth continuing to employ it.

"I believe it is important that the plant should be gathered in the spring shortly before the leaves appear; the stem is then to be slowly dried without artificial heat, and cut into short lengths for use. The infusion obtained from material so treated is superior to that made from plants gathered indiscriminately at any time, and, also, to the infusion made from *Triticum repens* which is imported by the herbalists for the purposes of French pharmacy in this country."—*Am. Drug. Circular and Chem. Gazette.*

A New Method to Separate and Determine the Presence of Alkaloids.

By L. Von Uslar and J. Erdmann.

The elimination of a poisonous base, when contained in very small proportions, in large quantities of organic matter, is a very circumstantial and troublesome process if the known methods are followed. We have, however,

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succeeded in contriving a process by which very small quantities indeed of fixed as well as volatile alkaloids, as morphia, narcotin, strychnin, nicotin, coniïn, even when mixed with very large proportions of other organic matter, may be eliminated very readily, and within a short space of time.

This process is founded on the fact that the free vegetable alkaloids are quite freely soluble in pure fusel-oil (amylic alcohol, boiling point =325° Fahr.), in such a way that great quantities of water even, especially when of an alkaline reaction, do not remove from it any of the alkaloid ; while, on the other hand, the hydrochlorates of the bases are of difficult solubility in amylic alcohol, and are readily removed from their solution by mere shaking with hydrochlorated water.

The following are the manipulations according to this method. The matter to be examined, made if necessary, into a thin pulp with water, and is slightly acidulated with hydrochloric acid, is digested for one or two hours at a temperature of 140°—170° Fahr. It is then strained through a linen cloth moistened with water, the residue exhausted by means of hot water acidulated with hydrochloric acid, and to the combined liquids a slight excess of ammonia is added, after which they are concentrated, first over open fire, and finally evaporated to dryness in the water-bath. The residue of the evaporated is extracted three or four times with hot amylic alcohol, and the solutions at once filtered through paper moistened with the alcohol. The filtrate is of a yellow color, and contains, besides the alkaloids, fatty and coloring matter. To free it from the latter, it is placed in a cylindrical vessel, and shaken strongly with nearly boiling, hydrochlorated water. By this operation the alkaloid is removed from its solution in fusel-oil, being taken up by the acid water, while the fat and coloring matter remains dissolved in the oil, which solution can be readily removed by means of a caoutchouc-pipette. A suction pipette is not admissible on account of the injurious action of the alcohol on the respiratory organs. By repeated shaking of the hot acid solution with renewed portions of fusel-oil, the remaining traces of fat and coloring matter may be finally removed ; a clear colorless liquid will result, in which the base is combined with hydrochloric acid. It is advisable to concentrate it somewhat by evaporation. An excess of ammonia is then added, afterwards some hot amylic alcohol, and the whole well shaken.

After complete separation of the liquid into strata, the upper one, the solution of the alkaloid in the alcohol, is drawn off, and the remainder again shaken with hot amylic alchohol ; the alcoholic extracts being mixed, are evaporated or distilled in the water-bath, the alkaloid remaining behind at the end of this operation, often sufficiently pure to be ready for the analytical manipulations. In case it should still be colored yellowish or brown, it is again dissolved in dilute hydrochloric acid, the solution shaken with amylic alcohol, the latter (with the coloring matter) drawn off, the acid solution then supersaturated with ammonia, again shaken with the alcohol (hot), and evaporated as before. But rarely this purification will need to be repeated.

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A number of experiments, of which we give a short sketch, will show the practicability of our method.

Two or three pounds of food made into pulp were mixed with one grain (0·064 gramme) of muriate of morphia, and then left to stand in a warm spot for three days, after which time distinct fermentation had begun. The extraction of the morphia by our method was completed in two days, the alkaloid being very distinctly proved by the reaction with perchloride of iron.

In another experiment, a still larger quantity of broken food, to which a large proportion of putrid meat had been added, was mixed with only 0·054 gramme of the muriate of morphia; still the latter was eliminated with the most perfect accuracy; and, since nearly the whole of the alkaloid was recovered in both cases, we reduced the quantity used, using in one experiment 0·007 (7 milligr.), and in another only 0·005 gramme (5 milligr.), of the salt, but the reaction with the perchloride of iron was distinct in each case. In another instance we placed into a calf's stomach 0·020 gramme of the salt of morphia, and exposed it for a fortnight to the sun and air. By the end of that time the stomach had become thoroughly putrid, a great number of worms having formed; nevertheless, the morphia was completely extracted and tested by the perchloride of iron reaction.

Again, we added a drop of nicotin to a pound and a half of broken food and meat, then two drops of coniin to as much food, both alkaloids being thoroughly eliminated and tested, especially by the characteristic odor peculiar to them.

Nine milligrammes of strychnin were eliminated and tested with perfect accuracy by the bichromate-reaction, after having mixed with food and treated in the same manner as the other bases.

Eight milligrammes of narcotin were nearly wholly recovered, and proved.

Finally, we mixed with some meat and vegetable food 0·012 (one-fifth grain) of morphia and as much narcotin, and began the operation, after allowing the mixture to stand in a warm place for four days. The alkaloids being eliminated by the new method, were then separated in the well-known manner by means of ether.

Having satisfied ourselves by these experiments that our method is applicable in all cases where the alkaloids are mixed in dead organic matter, we propose to extend our investigations in two directions. The first, to determine whether the elimination of the bases will succeed in like manner after they have passed the living organization, and especially after having exerted their poisonous effect. Secondly, we shall be able to find whether our method is applicable for the preparation of the alkaloids on the large scale. Considering the small number of manipulations, and the cheapness of the method, since the amylic alcohol can always be recovered, it should certainly appear preferable to the older methods of the manufacturers.—(*From Liebig's Annalen*, 1861. Vol. 120.)—*Am. Drug. Circular and Chem. Gazette.*

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[From the Cincinnati Lancet and Observer.]

Ferrocyanide of Potassium.—Prussiate of Potassium.

By Samuel F. Newcomer, M. D., Greenfield, Ohio.

Several times during the last ten years, I thought of sending to the *Lancet* my experience and observation on the use of prussiate of potash as an internal remedy; but delayed it, more fully to confirm my convictions of its value as a curative agent. Now my notes would more than fill a number of your monthly, and in order to reduce them to convenient limits must be satisfied with extracts here and there illustrative of the different class of cases in which its use has been profitable.

In 1842 I first saw the prussiate of potassium in the hands of a mechanic, and learned it was used in the prosecution of his art. Being pleased with its color,—the beauty of the crystals,—I procured a quantity in order to learn more about it. Although thus accidentally brought to my notice, I soon began to think of it as a medicine, and took several doses of it before I could venture to give it to others. I did not remember that Eberle or Chapman spoke of it as a medicine, nor any reference to it as such in the earlier editions of Wood and Bache; and I am certain it was not named by Prof. Dunglison in his lectures on materia medica during the course of 1832–33, and of 1833–34. Eberle said it was used by Mr. Wollaston in his investigations of the *modus operandi* of medicines. This is all the reference to it found in any of the books used during my medical studies, In 1848, six years after I first used the prussiate of potassium medicinally, I found a short notice of it on page 709, vol. i., Pereira's *Materia Medica*. There in the testimony of Drs. Arat, Wollaston, Macneven, Emmert, and others, it might be taken in large doses, but was of no value as a medicine. But Dr. Smart (*Amer. Jour. Med. Sciences*) regards it as possed of some activity. Dr. S. gave it as a sedative, etc.; but Pereira thinks further evidence is needed to confirm his statements, which do not accord with the observations before reported.

Being satisfied of the good effects of the prussiate of potassium in some forms of disease, the only advantage derived from Pereira's book was the assurance that large quantities could be given without danger. I had not previously given over eight grains at a dose.

I will now give in few words the class of cases in which this medicine was first used: Invalids, the largest number females of enfeebled habits, relaxed fibre, languid digestion, flatulent, sour stomach, sleepless, and the train of varied symptoms usually attending such a state of the system. Prominent among others is pain, more or less severe, in the stomach and bowels, in the nerves of the face, forehead, etc., but more severe and constant in the head. The bowels may be regular or contrary-wise; pulse often too quick; always irritable, easily excited, and seldom regular for any length of time; hands and feet cold, or inclined to be so, etc. Such cases often gave me much trouble. Anodynes might afford relief for a time, but the distress caused in other re-

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spects is often a bar to their use. Tonics would heat the system, dry the tongue, and excite fever; the usual alterative of little or no effect, and a judicious course of diet and general hygienic rules rarely persisted in long enough to secure good results.

After correcting any marked lesion of function of the liver, stomach or bowels that might exist, I would give prus. potassium, ʒ ij., ext. glycyrrhiza, grs. x. to xxx., aqua pura, ℥ ij. Dose, half to a whole teaspoonful, every three to six hours, according to the violence of the symptoms or the promptness of the remedy in relieving them. It may here be said the preparatory treatment did the work, but on this point I made many satisfactory trials, and for years past I gave the potash as the first and only medicine used in the case.

Females run down from lactation often present the train of symptoms above described. To many patients in this condition two or four ounces of a solution of prus. potassium would be all the medicine given, and yet speedily cured. Some stomachs reject the glycyrrhiza, and then the formula I use is: Prus. potassium, ʒ ij. to iv., essence peppermint, gtt. x. to xxx., aqua distillata, ℥ iv. Dose, thirty to sixty drops in elm-bark or gum-arabic mucilage, and water. Some take the medicine as it is in a little water.

It is now nineteen years since I began the use of the prus. potassium, and have given it as often as any one preparation of the materia medica, and yet I do not think there was over ten or twelve persons met with who could not take it on account of any unpleasant effect on the stomach, bowels or head.

Hundreds are tortured with headache, complaining of no other symptom. Eight out of ten cases of this kind I cure or greatly relieve with this salt, given in one of the preceding formulas. Neuralgic pains of the face, head or other regions, are often promptly cured by it. In all cases of this nature, the prus. potassium is depended on. A very intelligent lady, who had for a long time suffered much with headache, said this medicine was essentially a headache medicine, it often giving relief from a severe pain in the head in thirty to sixty minutes, without vomiting, purging, or disturbing effects.

As a stomachic or invigorator of digestion, and hence a tonic, it is in my hands oftener used than all other remedies, and with more success.

You would not, Mr. Editor, allow me room in your monthly to define all special cases which would indicate its use; every physician will soon learn this. Of one thing I can assure him—that is, no serious results ever attended or followed its administration in my hands.

I have found this medicine most valuable in some cases of asthma, and cured two cases of long-standing. One patient, a man aged 45 to 50, had been under treatment by all kinds of doctors and quacks of every hue, for four or five years—reduced to a sketeton. I tried many remedies, but cured him at last by prus. potassium mainly.

In epileptic fits of children of four to eight years old, it is my best agent to correct the deranged system generally, putting it in a good condition for other medicines. It often prolongs the return of the fit; and in a case now under treatment, a boy six years of age, it bids fair to effect a cure.

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In that peculiar type of neuralgia called "sun-pain" by the people,—the pain coming on in the morning, reaching its intensity between 12 and 2 P. M., and then declining till it ceases at night,—several well marked cases were cured in twenty-four to forty-eight hours, using only prus. potassium. Previously I had to purge freely, then give large doses of morphia, opium, camphor, cannabis indica, quinia, iron, etc., etc., and sometimes blister,—the affection in some instances holding out from four to twelve days.

I must give the history of one case more in detail. In my previous remarks I aimed to give in the smallest number of words a hint of the class of cases or disease where this medicine has been useful.

The case of Mrs. R., aged about thirty, was remarkable on many accounts —principally, however, from its pathological difficulties, it being impossible on my part at least to determine the precise locality, the cause, and the nature of the most prominent symptoms; also in the fact of not having received a particle of benefit from anything they previously had done,—and all treatment had been abandoned for several months before I saw her, and resumed at the time because, as Mr. R. said, he could not endure the sight of his wife's sufferings and make no further attempt at relief, notwithstanding the complete failure of every effort previously made.

The case came into my hands April 1st, 1848. She appeared bloodless—so pallid and anæmic a person I had never encountered—the whole surface, lips, gums, tongue and fauces whiter than I had ever seen before. Her pulse ranged from 100 to 150—it could not always be counted; tongue clean, moist and white; skin dry, at times very hot, and then very cold without being in a chill, hands and feet always cold; bowels very torpid, requiring active and oft-repeated doses, and the syringe, to secure a motion; stools clayish, then ashey, again natural, and then black as tar. Large quantities of limpid urine passed daily; urinating caused intense pain, often agony; the urine was at times mixed with blood, and large lumps resembling organized flesh more than blood coagula. Menstruation irregular, the fluid colorless, and at times very painful. The womb prolapsed; vagina and urethra ulcerated—a dry, tetterish-like ulcer with great heat, the abrasions extending over the labia major, perinæum, and around the anus. All applications—whether of oils or mucilage, hot or cold; solutions of lead, nitrate of silver, lime-water, and oil poultices of all kinds,—failed to mitigate the head and pain constantly present, and when the urine passed it seemed to throw her into tonic spasms. Abdomen full and doughy, and besides the pain of the vagina and continuous parts, she suffered pains in every region of the body; but the greatest of all was a pain that came on at intervals, sometimes once, often twice, in twenty-four hours; it occasionally intermitted one day; at long intervals she was free from it for forty-eight hours. It began in the os coccygis, slowly extending over the pelvis and up the sacrum, then along the spine till it reached the head; the pain passed to the head in from two to three hours after it was felt in the pelvis; as it traveled up the spine it grew in severity, till it reached the culmination in the head. The hair has turned quite grey since the pain of the head. Speak-

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ing of the pain over the body, it should have been stated that pressure everywhere increased it, and caused pain when it was absent. This tenderness was over the whole surface of the body and extremities, and hence I concluded it was of a neuralgic character, and seated in the superficial muscles. One feature in this case seemed out of harmony with the preceding relation—the absence of emaciation; she was too weak to be up, yet was not much reduced in flesh At first it was ascribed to anasarca; but this was not clear, nor can I yet account for this to me remarkable fact, as her appetite was nearly gone, and the little food she forced into her stomach was of the weakest—crackers, tea, and a little milk and water, all sparingly taken, except the water.

Mrs. R. had been bedridden four years, all the time in the doctors' hands—half of the time treated by quacks of the Eclectic stamp, and the other half by physicians of respectable standing; but, as previously stated, no benefit followed this long course of medication.

I began with anoydines, tonics, cuppings, blisters, pustulating unguents along the spine; belladonna, stramonium, opium, morphia, cannabis indica, quinia, and the preparations of iron, vegetable acids, hot baths, cold sheet, shower baths, ice to the head, wines, and in short everything that had the least show of doing good. Nearly a year was consumed in this fruitless medication, and I would have abandoned the case in three months as incurable, and every month after the first quarter. But the patient would not suffer me to suspend treatment, saying with much confidence that she was "certain I would hit the right medicine in time." This was likely due to the great interest I felt for her. With her consent, I at one time gave her opium to narcotism, and kept her in an unconscious condition for two or three days; it did no good, and required ten days to recover from its effects. I often quit all medicine for a week or two, not knowing what to give or what to do, expecting that nature might give a new turn, or indicate some untried course.

After intermitting the medication for a short time, the prus. potassium, ʒ ij., ext. glycyrrhiza, grs. x., aqua distillata, ℥ ij., was given in twenty-drop doses, repeated every four hours and gradually increased. I saw no special fitness of the remedy to the case in hand—it was a *dernier ressort.*

The effect of this remedy was not only good, but promptly so, and to an incredible extent. Four days after the first dose, Mrs. R. said she had now a remedy for her case. In three weeks the vaginal disease was perfectly cured, and measures taken to correct the prolapsus uteri. In thirty days the pulse was at the normal point; nor did she ever again endure that severe pain of the spine and head but that a dose of the potassium, taken at its onset, would arrest it in twenty to forty minutes.

This lady took the medicine in large doses without detriment. At the end of the second week she used tablespoon doses of a saturated solution. It was contrary to my wishes, yet she persisted in the use of such doses for one or two months, when the cure was complete.

This lady now became a child-bearing woman; her children, with one exception, were large and perfectly developed. Four years after she got well,

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her husband wrote to me from Iowa that his wife was called as stout and healthy a woman as their neighborhood could produce.

— I have now said enough for any one to begin the use of the prus. potassium with profit and safety. All my observations on this medicine purely as a sedative are omitted, because we now have a more reliable article of this class in veratrum viride. In many cases where veratrum viride is contraindicated, I still use the potassium.

It may be expected that I would class the potassium—assign its place in the materia medica. This I will leave to the next author of such a work. Yet, had I no fear of making this article too long for the editor, much might be said on this head.

I am positive the prussiate of potassium will reduce the pulse, and is so far sedative. It excites the appetite, and promotes digestion,—in some instances to a degree not reached by any other article. I use it in many cases as a tonic. In neuralgia and nervous pains of the head, face, and other parts, in "sun-pain," it will give relief; therefore it is an anodyne. When successful in asthma, as it has been in my hands, it is antispasmodic or alterative. As a restorer of an exhausted system, from lactation or other causes, it is my most certain remedy. In chest difficulties it has done more than the chlorate of potash for me. In a large majority of neuralgic patients it is my first, my last and only medicine.

If any of our professional brethren adopt the prus. potassium into the list of their curative agents, I would like at a future period to hear from them, whatever may be their conclusions. I know that men in our profession have their pets or hobby, to which they ascribe virtues that no one else can verify —as Hamilton with purgatives, and a hundred other instances could be found; and I am really curious to know how much of all the varied qualities assigned the prus. potassium in this article will be found by others. No one could be more careful than myself, and nineteen years seems to be time enough to establish a truth in therapeutics.

Native Nitrate of Soda.—One of the British Consuls in Brazil reports that, in the neighborhood of the river San Francisco, in Bahia, Brazil, at a place called "Salitre," large deposits of nitrate of Soda exist. In the words of a distinguished Brazillian, it is found through a valley of from 16 to 20 leagues in extent; in some places on the surface, at others a few feet under, in masses, and is sufficiently abundant to yield a supply for exportation for years to come. On the opposite side of the San Francisco river, near the town of Pilao Arcado, other equally large deposits exist. The projected Bahia railroad to the town of Joazeiro must pass through the first named district at a distance from the coast of 240 miles.—*London Chem. News; Am. Jour. of Pharm.*

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Selections.

TRIFOLIUM IN FŒNO IN WHOOPING COUGH.—Dr. Foster, of Huntingdon, England, recommends common clover hay (*trifolium in fœno*) as a successful remedy in that disease. Of fifty cases in which he used it, it failed only in three or four. He states that it cures mostly in a few days, sometimes, however, requiring a week or more.

The formulæ used are an *infusion* of the hay, which must be sweet and leafy, in a pint of boiling water, strained after macerating for four hours—dose for a child 5 years old a tablespoonful three times a day; and a *syrup* made by boiling down an infusion of 2½ ounces of the hay with 2 ounces of sugar in 1 pint of water, to the proper consistency. Dose for a child of the same age: 2 teaspoonfuls four times a day.—*American Druggists' Circular and Chemical Gazette.*

UNUNITED FRACTURE CURED BY EXCISION AND SILVER WIRE, AFTER STANDING TWENTY-SEVEN MONTHS.—In the *North American Medico Chirurgical Review*, for July, Prof. S. D. Gross relates an interesting case of fracture of the humerus, possessing points of interest which we shall copy here. The patient was aged thirty-two, and of dissipated habits. For more than three weeks the arm, which was broken three inches above the elbow, was not dressed. Then, in consequence of extensive suppuration, no retentive apparatus could be applied, or retained, and ununited fracture was the result. Twenty-seven months after the accident, Prof. Gross operated: "after chloroform had been administered, a straight incision, about four inches in length, was made through the posterior portion of the triceps muscle, exposing at once the membrane which had encased the fracture. On severing this, it was found that the oblique extremities had been rounded off and become incrusted by semi-cartilaginous tissue, so as to form a very perfect false-joint, which was lubricated by an abundant, thin, glairy fluid, though nothing like a synovial membrane could be detected. They were each in turn brought to the opening thus made, and cut off at right angles by means of a delicate saw introduced behind them. It was necessary to take about half an inch from the lower fragment, and nearly three times as much from the other. One ligature, made of three strands of the usual size silver wire, passed horizontally through each section of bone, and another diagonally across the edges, which, after having been tightly twisted, were cut off short, and the ends bent up so as to lie close beside the body of the humerus. The incision through the skin was then approximated closely with interrupted sutures, and the whole arm placed in well-padded curved splints of binder's board."

Notwithstanding, phlegmonous erysipelas attacked the arm, compelling the removal of the splints, it is yet said, "there is every prospect of his having a strong and useful limb."—*Medical and Surgical Reporter; British American Journal.*

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TINCTURA VERATRI ALBI, FOR FRECKLES.—A proprietary remedy for freckles, the sale of which has been authorized by the Bavarian government, on being analysed by Mr. Holland, jr., (*Arch der Pharm.*) proved to be a tincture of the root of white hellebore, made in the proportion of one part of the root to four of alcohol, and slightly flavored with cinnamon. The preparation has been found to be quite efficacious for that affection.—*American Druggists' Circular and Chemical Gazette.*

AN INDIAN REMEDY FOR VARIOLA.—This disease is the special plague of the Indians. When it breaks out among them it sweeps over their encamping grounds like the fire of the prairies, destroying all of human kind in its path. On one occasion, among the Indians near the city of Halifax, Nova Scotia, whole families were carried off by its ravages. After a time, however, the pestilence was stayed, and it was asserted that an old, weird Indian woman possessed a remedy, which would speedily and effectually cure any who were attacked with it, and that, coming into the camp, she had administered the preparation with infallible effect in every case. In the case of an individual suspected to be under the influence of the disease, but with no distinct eruption, a large wineglassful of the infusion of the root of the "*sarracinia purpurea*," or pitcher plant, is to be taken. This brings out the eruption. A second or third dose, given at intervals of four or six hours, causes the pustules to subside, apparently losing their vitality. The patient feels better at once, and, to use the graphic expression of the "Micmac," "knows there is a great change within him at once." If the patient be already covered with the eruption, in the early stage, a dose or two will dissipate the pustules, and subdue the febrile symptoms. The urine, from being scanty and high colored, becomes pale and abundant; while, from the first dose, the feelings of the patient assure him that the "medicine is killing the disease." In three or four days the prominent symptoms of constitutional disturbance subside, and no marks of the eruption are left upon the skin. In the camps, when the remedy is used, a weak infusion of the plant is taken as a preventive, "to keep the antidote in the blood." So important is the knowledge of this plant thus obtained considered to be, that its anti-varioloid properties are to be tested in England. And it is most assuredly worthy the attention of the profession in this country. Vaccination is not infallibly certain as a preventive, and we have, as yet, no remedy which will cut short the ravages of the disease, or prevent it from leaving indelible marks upon all who are attacked with it.—*Med. and Surg. Reporter.*

REPUTED SPECIFIC FOR SMALL-POX.—At the last meeting of the Epidemiological Society, a communication was read from Mr. Herbert Miles, Assistant Surgeon to the Royal Artillery, respecting a plant that was stated to be a specific for small-pox. The remedy is given in the form of a strong infusion of the rhizome, and Mr. Miles had, after very considerable difficulty, succeeded in obtaining a small supply of the plant, which he had forwarded to the Society.

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Mr. Miles is quartered in Canada, where an epedemic of small-pox having broken out among the Indians, the disease had proved virulent in the extreme among the unprotected, because unvaccinated, natives, However, the alarm had greatly diminished on an old squaw going amongst them, and treating the cases with the infusion. This treatment, it is said, was so successful, as to cure every case. The Secretary of the Society, Dr. McWilliam, C. B., had sent specimens of the plant to Dr. Hopoer, of Kew, who pronounced it to be the *Sarracenia purpurea*, one of the pitcher plants of North America.

Mr. Marson, of the Small-Pox Hospital, has kindly undertaken to give the so-called remedy a trial.—*London Pharm. Jour., December*, 1861; *Am. Jour. of Pharm.*

Gelseminum Sempervirens.—This agent has been employed to fulfill many indications in the treatment of disease, and there is no doubt but that its action is varied. The most decided influence, in my opinion, is its power of controlling irritation of the cerebro spinal centres, and is, therefore, exceedingly valuable to prevent determination of blood to the head and spinal cord, and to prevent and relieve spasmodic action. I know, by long experience, that the agent possesses such properties; thus, in disease of children, when symptoms of determination to the brain become manifest, I order Tincture of Gelseminum, with perfect confidence that it will arrest it; in exaltation of the *excito motory* function, as manifested by convulsions, and minor spasmodic affections, it is a reliable remedy. Thus, where symptoms of spasmodic action arise during a disease, I order the Gelseminum with an almost absolute certainty that it will arrest the spasmodic action. I consider these the most valuable properties of the agent.—*Eclectic Med. Jour.*

Postural Position in Prolapse of the Funis.—In a lecture on this subject, delivered in the University Medical College, New York, Dr. T. G. Thomas lays down these rules in regard to the postural method:

1. As soon as you have diagnosticated the existence of prolapse of the funis, explain the reasons for the change of position to the woman, and place her upon the knees, and elbows, elevating the buttocks as much as possible... 2. Pass the entire hand into the vagina, passing the cord (if toward the sacrum) down under the head, and thus over the symphysis pubis, and push it past (i. e., above) the presenting part...3. Should it return, repeat the operation, and keep the hand in position for two or three pains...4. Keep the woman in this position, until the head has been driven into the pelvis; then let her lie as she chooses...5. Should this means fail, resort to version, if the head is above the superior strait, to the forceps if below it.—*Am. Med. Monthly.*—*Cincinnati Lancet and Observer.*

Hydrochlorate of Ammonia.—There is a remarkable similarity in the general effects of this salt and the Chlorate of Potassa. The Germans, especially, have long placed an estimate upon it as an alterative, which has surprised those who have not had considerable experience in its use. Lotions of varying degrees of strength of solution may, in the large proportion of cases, be ad-

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vantageously substituted for the more expensive stimulating liniments usually directed. It thus forms a cheap and efficient rubefacient and discutient, well adapted for prescription in general practice. In many forms of cutaneous disease, characterized by temporary improvement under the application of local remedies of a stimulating nature, it is particularly beneficial. Thus it is especially useful, both exhibited internally and employed externally, in connection with arsenicals in treatment of original squamous affections, and where, in other varieties of tegumentary eruption, the furfuraceous surface is presented. Acne is often well controlled by its local application. As a discutient of slow glandular enlargements, it may rank with or next to Iodine, and has the advantage that it does not discolor the part of application.

As an alterative, liquefacient, resolvent, or promovent of cell and tissue metamorphosis, it is worthy of the high rank which our German confreres assign it—ordinarily improving digestion and renovating the secretions in a marked degree. Western practitioners, who have had much experience with it, given in full doses, in combination with Quina, assert that the system is left in a much better condition than when the latter is given singly, and that the necessity for administration of mercurial and other cathartics is very materially lessened or altogether removed.

The same peculiarities fit it for valuable exhibition in many obscure neuroses, where defective irregular innervation is the prominent symptom. We beg leave to recall the attention of the profession to this old remedy, as well worthy more frequent trial than it now receives, sensible, as we are, that, under judicious use, it will by no means as frequently disappoint in result as many newer and more fashionable medicines.—*Chicago Med. Jour.*

Frost-Bites and their Treatment.—Dr. R. Nelson pronounces the usual practice of rubbing frozen parts with snow, putting spirits into the boots, etc., to be erroneous. Freezing proceeds from without inwardly, and the thawing or recovery of the parts ought to follow the reverse order, else destruction will ensue. The particles first frozen must be the last thawed, and the thawing must take place slowly from within. Rubbing and kneading is injurious. The proper treatment is to apply such a degree of cold as will not increase the freezing, but at the same time prevent it from thawing until it is reached by the natural thawing from within outwardly; such a temperature is barely the freezing point, 32° above zero of Farenheit. Water can be readily brought to that point by putting snow, ice, or frozen earth in it. Fingers or toes may be immersed in this water; to the ears, nose, or cheeks, it is to be applied by means of a napkin frequently dipped, until color and softness returns to the part. After that, less cold water may be used, so as to keep down the inflammatory congestion that is likely to follow. If the epidermis blisters, prick these blebs, dress with basilicon, and exclude the air and light. When the congelation has penetrated deep, the part will slough, however judiciously it may have been thawed. A frozen bone never recovers.

A person falling into cold water should as soon as he gets out again press, by a quick squeeze or rub-down, the excess of water out of his clothes, and

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then run as briskly as he can, say for half an hour, before his clothing is changed. A man may freeze to death in an hour, or even in less time.—*Am. Med. Monthly; Cincinnati Lancet and Observer.*

Cornus Florida as a Local Application.—In foul and indolent ullcers, phlegmonous erysipelas, anthrax or carbuncle, after it has ceased to spread, and after similar affections where there is want of vitality in the tissues, the cornus florida will be found an efficient application. To make a poultice, we direct that a strong decoction of the bark be made and thickened with wheat-bran, or the decoction can be applied by wetting lint or cotton cloth with it, and frequently renewing the application. It proves stimulant, tonic, and antiseptic.—*Eclectic Med. Jour.*

Effects of the Essence of Checkerberry.—Dr. W. E. Townsend reported to the Boston Society for Medical Improvement the case of a woman who had become insensible after drinking six ounces of essence of checkerberry. She was apparently in a sound sleep, but could not be roused. Pupils contracted. After being made to inhale the vapor of ammonia she roused sufficientiy to take an emetic, which, however, did not operate, and she immediately relapsed into unconsciousness. After two hours, a powerful galvanic battery was applied, from the effect of which she vomited; but such was her condition that she was nearly strangled by the contents of the stomach lodging in the fauces. She then appeared to be sinking, but in the course of an hour showed signs of reanimation, and gradually recovered, having been insensible for ten hours. Dr. Hooker mentioned the case of another young woman who swallowed some toddy containing a large amount of oil of checkerberry. She soon became very stupid, and afterward vomited. The result was a severe and very nearly fatal attack of gastritis.—*Boston Med. and Surg. Jour.; Cincinnati Lancet and Observer.*

Dr. E. M. Hale, recommends the following embrocation for inflammation of the mammæ:

℞—Fluid extract of aconite.....1½ oz.
" " " phytolacca.....1 oz.
Iodide potassium.....1 dram.
Warm water.....1 pint.

Wet linen compresses, and apply constantly. No application with which I am acquainted will so surely prevent tumors of the mammæ from taking on the suppurative process. Even if suppuration have taken place, it resolves the indurations, and relieves the pain.—*Phil. Med. and Surg. Reporter; Eclectic Med. Jour.*

Ice Water in Croup.—Dr. J. A. McFarland, of Tiffin, O., calls attention to the good effects of ice water applied externally in all croupal affections. He uses folds of muslin or linen, large enough to cover the whole throat and upper part of the sternum. The wet cloth, wrung just enough to prevent dripping, ought to be covered with several thicknessess of dry flannel, and then both

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should be secured with a small handkerchief. These applications, renewed from time to time, are continued till the disease is thoroughly subdued. Occassionally, ipecac and alum as emetics, enemata, castor-oil, calomel, the warm-bath, anodynes, solution of nitrate of silver, may be used besides; even in severe cases, however, ice water alone can be relied on.—*Columbus Review; Cincinnati Lancet and Observer.*

Arsenious Acid in Large Doses: A Substitute for Quinine.—*By J. Turner, Surgeon to H. M. Brigade, Bombay House Artillery.* (Communicated to the Royal Medical and Chirurgical Society.)—The author has employed arsenious acid for twenty years in the treatment of intermittent fevers, and on account of the great drain upon the cinchona-tree, its failure in India, and his strong opinion as to the equal if not greater value of arsenious acid in the above-named diseases, he now brings the results of his experience before the profession. He considers the fears of an inconvenience or danger arising from the remedy as much exaggarated, and instances the case of a child of nine months, to whom he gave twenty minims of the arsenite of potash within ten hours, repeating the dose on the following day, with the only effect of curing an obstinate quotidian intermittent. Mr. Turner's success was so marked, that in 1860 the Director-General stated that Mr. Turner should be thanked for "drawing attention to his successful treatment of intermittent fevers by large doses of arsenic, and steps should be taken by circular to urge an extended trial of this remedy, and reports requested." The course usually adopted by the author was to give the arsenite of potash as in the following prescription:—Arsenite of potash and compound tincture of cardamoms, of each half a dram; gum mucilage, three drams; camphor mixture of water, half an ounce; mix. To be given every second hour four or five times, the last to anticipate the expected paroxysm at least two hours.—*Phar. Jour.; British American Journal.*

Asphyxia from Chloroform.—In all cases where the breathing ceases during the inhalation of chloroform, Dr. D. Pierce, of Jacksonville, declares the one thing needful to be: to secure a *speedy* entrance of air into the lung. The speediest method to secure this is that of Marshal Hall, turning the patient over, to and fro. Therefore this method should in all cases be first resorted to, and that immediately upon the cessation of inspiration, or whatever inconvenience. If the patient is in the sitting posture, he should be immediately thrown upon the floor and rolled over. All other restoratives can be dispensed with, except those which may be resorted to at the same time. The patient, for instance, may be slapped upon the back and cold water be dashed upon the face, at the same time the rotations are practiced.—*Chicago Medical Examiner; Cincinnati Lancet and Observer.*

Treatment of Delirium Tremens.—Dr. J. A. Thacker lays down the following rules: If the delirium is great and there are other symptoms of much cerebral irritation, free cupping at the back of the neck should be instituted. It has even been employed with success when the pulse was rapid and rather

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flagging, and all other means had failed, and is often alone sufficient to procure sleep. The cold shower-bath is often follwed by a like result. Opium should be used with great caution. It may be good, alone or conjoined with antispasmodics, in slight cases, where excessive watchfulness is the only symptom. Chloroform is a dangerous remedy. Stimulants may be exhibited, if indicated.—*Cincinnati Med. and Surg. News; Cincinnati Lancet and Observer.*

Pharmacy.

ON THE DETECTION OF STRYCHNIA AND OTHER VEGETABLE AND ANIMAL PROXIMATE PRINCIPLES.

By Thomas E. Jenkins.

The writer having been employed in the month of September, 1855, to investigate, chemically, a case of suspected poisoning, a course of analysis was entered into, the result of which indicated the presence of strychnia in the contents of the stomach.

One set of reactions which pointed to this poison, was the coloration produced by oxidizing agents; these re-agents, although said by many chemists to be characteristic tests for strychnia, were not certainly known to be so by me, for the simple reason that I had not tried and seen their effects upon the various organic principles which were accessible to me. To satisfy myself upon this point, the following experiments were made.

It was not deemed necessary to use more than one of the oxidising agents commonly employed for the purpose, because the results produced are substantially the same whether the oxidation be produced by one or the other of them.

The manner of making these experiments was simply to mix on a white porcelain surface about the twentieth of a grain of the organic substance with one or two drops of colorless *concentrated sulphuric acid*, allowing them to remain in contact for a few moments, then testing with a small fragment of a crystal of *bichromate of potassa* drawn through the solution or mixture.

With many of the principles, the sulphuric acid reacted powerfully with the development of beautiful, and, in several instances, intense colors. These I have noticed, as well as those produced by the subsequent action of the bichromate of potassa.

In these experiments I have disregarded all changes except those resulting in the production of colors or their mutations.

In point of time, quantity of substance tested, and mode of operating, the experiments were all as nearly alike as possible.

The proximate principles which I employed were pure and nearly all in crystals.

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The changes in color are given in the order in which they occurred.

Proximate Principles.	Color produced by Sulphuric Acid.	Color produced by Bichromate of Potassa.
Morphia,		Brown, green.
Narcotia,	Canary yellow,	Brown, dirty green, blue.
Ononine,	Light orange,	Brown, dirty green, blue.
Papaverina,	Purplish red,	Greenish yel., dk. green.
Peucedanine,	Lemon yellow,	Dirty yellow.
Phloridzine,	(evenescent,)	Yellow, green, bluish.
Picrotoxia,	Orange yellow,	Yellow, green.
Rheine,	Intense red,	Muddy, green.
Piperine,	Bromish red,	Dirty, green.
Salicine,	Rose red,	Brown, quickly green.
Santonine,		Yellow.
Strychnia,		Blue, purple, red, orange.
Theine,		Slight brown yellow.
Theobromine,		Slight brown yellow.
Caffeine,		Light yel. green, brown.
Urea,		Yellow, no change.
Veratria,	Intense brown red,	Brownish yellow, green.
Aconitia,	Brown,	Brownish green, bluish.
Anemonine,		Yellow.
Asarine,	Brownish red,	Brown, dirty green.
Atropia,		Yellow.
Cantharadine,		Yellow.
Codeia,		Green.
Delphinia,*		Orange, brown, green ?
Columbine,	Brownish yellow,	Brown.
Daturia,	Yellow,	Evanescent pink, green.
Digitaline,	Brown,	Yellow, green.
Elaterine,	Brown,	Brownish, yellow.
Emetia,	Brown,	Muddy yellow, green.
Gentianine,	Yellow,	Yellow.
Meconine,	Yellow,	Yellow, green.
Sanguinarina,	Red,	Brown.
Solanine,	Orange,	Yellow, green.
Cinchonia,		Light, green.
Quinia,		Light, green.
Quinidia,		Green.
Bebeerina,	Brown,	Brown, green.
Esculine,		Brown, dark green.
Amygdaline,	Rose red,	Brown, light green, blue.
Berberina,	Brownish yellow,	Deep red, brown.
Brucia,		Bright, brick red, green, yel
Cetrarine,	Brownish yellow,	Brownish yellow, green.
Cubebine,	Beautiful red,	Yellowish green,
Hæmatoxyline,	Orange, dark brown, red,	Dark, brown.
Indigotine,	Dark greenish blue,	Orange.
Kinovic Acid,	Yellow,	Pink, green.
Kinic "		Green.
Gallic "		Green.
Carbazotic "		Brown.
Uric "		Yellowish, green.

* The result of one experiment.

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Nearly all left a green coloration on the spot after the lapse of twenty-four or forty-eight hours, owing to the reduction of chromic acid to sesquioxide of chrome.

These and other observations I have made in regard to vegetable proximate principles, convince me of their general and powerful deoxidising properties, as well as the establishment of the fact that the "*color test*," or "*oxidising test*," is not only delicate but characteristic, and consequently reliable. In reference to the delicacy of the "*color test*," I found that when one grain of pure strychnine was dissolved in 400,000 drops of distilled water, and one drop of that solution was allowed to evaporate to dryness on a glass plate, not only were the crystals of strychnine revealed by the microscope, but on the addition of a small drop of very white concentrated sulphuric acid, and the subsequent application of the point of a picula of bichromate of potassa, the characteristic colors were brought out.—*London Chemical News; Amer. Jour. of Pharmacy.*

FORMATION OF THE GREEN MATTER OF LEAVES UNDER THE INFLUENCE OF THE ELECTRIC LIGHT.

M. Hervé Mangon has published the results of some experiments made by him, with a view of ascertaining whether the green matter of leaves, &c., would be formed when a plant was submitted solely to the influence of the electric light. It is well known that a plant grown in darkness is devoid of green color and it is generally considered that the sun's light is essential to its development. From M. Mangon's experiments it appears that the electric light is equally capable of inducing its formation.

The electricity was produced by an electro-magnetic machine worked with a steam engine. The light was obtained from a lamp with charcoal points. The light was maintained for eleven hours on the 30th July, twelve hours on the 31st July and 1st and 2d of August, and eleven hours and a half on the 3d of August. The temperature of the air varied from 22° to 25° C., and the earth from 19° to 21° C. In the morning of the 30th July several flower-pots, each containing four grains of rye, sown respectively on the 24th, 26th, 27th, and 28th of July, were placed in a large space perfectly secluded from external light, the pots standing about one metre from the electric lamp, and half a millimetre below the point of light. The grains sown on the 24th and 26th had sprouted, the stems being about 0.^{m}005 to 0.^{m}012 in length. One of these small plants presented the commencement of a green tint at the point, the others were white. By the middle of the day of the 31st the plants of the 24th and 26th had grown to 0.^{m}01 and 0.^{m}06 in length; they were *very green*, and strongly inclined towards the light. The plants of the 27th had sprung up and were green at the tips. By the 2d of August all the plants had developed as well as if they had been in the open air, and all exhibited their natural green color. On the 3d of August the experiment was brought to an end. It is scarcely necessary to add that some corresponding seeds grown in darkness for the same period were perfectly yellow.

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It follows from the above that the electric light, like sunlight, is capable of causing the development of the green parts of plants. It has been previously shown that the light resulting from very intense combustion, such as results from pyrotechnic compositions for instance, is capable of producing the same effect.—*London Pharm. Jour.; Am. Jour. of Pharm.*

ON BAUME TRANQUILLE.

By Wm. C. Bakes.

It would be supposed that the rapid advancement which Pharmacy has made during the past few years, would render it unnecessary for the pharmaceutist to seek for "specialities" among the discarded formularies of ancient *Pharmaciens;* but such is not the case. Ever and anon some enterprising member of the profession, in his endeavors to meet the requirements of the physician, introduces either an old remedy under a new name, or a modification of an old recipe under it original title.

Some of our practitioners are prescribing a French preparation, formerly much used in this city, but of late years nearly obsolete, and as there seems to be an inquiry for it, I furnish the formula for publication in the Journal, so that if it possesses the merits claimed for it, all may share them alike, and this valuable preparation be restored to the position which it formerly occupied among the much valued class of anodynes.

Baume Tranquille.

Take of Fresh Belladonna leaves,
" Conium "
" Hyoscyamus "
" Stramonium " each ℥ iv. ʒ iii.
Opium ℥ i.
Olive Oil, Ovj.

Mix the whole together and boil over a slow fire, strain and add

Oil of Sweet Marjoram,
" Sage,
" Wormwood,
" Lavender,
" Thyme,
" Peppermint,
" Rue, of each ʒ ix.

As the fresh leaves are not always accessible, the *Baume* may be prepared from the inspissated juices or extracts, in the following manner.

Take of Extract of Belladonna,
" Conium,
" Hyoscyamus,
" Stramonium, each ℥ i.
Aqueous Extract of Opium, ʒ ii.

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Dissolve the extract in a little boiling water, and add

Olive Oil, Oiiss.

Strain, and when cool add the same proportion of oils as in the preceding formula.

This process has the advantage of being more expeditious, and furnishes a preparation of equal strength with that from the recent leaves.

A remedy containing the same ingredients, and made in a similar manner, substituting Glycerine for the Olive Oil, has been prescribed under the name of *Baume Anodyne;* as an application for ear-ache, which the pharmaceutist is frequently called upon to furnish, these preparations answer an admirable purpose, being both prompt and effectual.—*Amer. Jour. of Phar.*

INDIA-RUBBER STOPPERS FOR BOTTLES.

Messrs. Editors: Will you allow me to call the attention of the profession, through your pages, to a recent invention which promises to be of great convenience to physicians, as well as to all other classes of the community. I refer to the India-rubber corks for bottles and vials. By means of this admirable substitute for the common cork, bottles containing the strongest acids may be carried without danger in the pocket, and the great inconvenience and expense of ground-glass stoppers obviated. The vulcanized rubber of which they are made will resist, I believe, all chemical agents. I have kept a bottle of concentrated sulphuric ether closed with one of these stoppers inverted for several days, without the slightest visible effect being produced on the gum.

For alcohol, solutions of nitrate of silver, tincture of iodine, the various mineral acids, and indeed, for all liquids, the India-rubber stopper is more than a convenience, it is a positive luxury, as, I am confident all will agree who have tried it. To practitioners in the country, who carry their own medicines with them, it will be of inestimable advantage. In the sick room, also, the new stopper is of vary great utility. By means of it, bottles coutaining effervescing fluids, such as champagne, citrate of magnesia, soda-water, &c., can be tightly corked again after having been opened, so that small quantities of their contents may be used at a time without the slightest detriment to the remainder. Lastly, and not least, these corks are sold at a price which will place them within the reach of all. M.—*Boston Med. and Surg. Jour.; Am. Jour. of Pharm.*

Editorial.

Our Journal will be issued monthly hereafter, and, we trust, promptly. We are somewhat behind with this number, caused by delays incident to the closing of one year and the commencement of another. Subscriptions thus far are highly encouraging, and, with the assurance that it will be hereafter issued promptly, we trust they will continue to come in.

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REORGANIZATION OF THE MEDICAL DEPARTMENT OF THE ARMY.—We publish herewith the new bill introduced by Senator Wilson for the reorganization of the Medical Department of the Army, because it is a measure of interest to every member of the medical profession. The main features of the bill are:

1. The increase in the force of the Department.
2. Elevation in rank.
3. The formation of a Corps of Medical Cadets.
4. Promotion to be by merit, and not by seniority.
5. Officers to retire at sixty-five.

The title of the chief officer is changed from Surgeon General to Medical Director. The addition of a Sanatary Department, properly appointed, is a most important improvement.

The importance of a reorganization of the Medical Department of the Army is an admitted fact by military officers, as well as by the Medical Staff. The medical profession have now an excellent opportunity to place this branch of public service, in which they have a general interest, on the most elevated basis, and should encourage this measure through their official representation in Congress.

SECTION I.—There shall be one Director General who shall have the rank, pay, and emoluments of a Brigadier General, and who shall, as chief of the Medical Corps, perform the duties now assigned to the Surgeon-General, and such others as may be required by law and regulations. There shall be one Sanitary Inspector-General, who shall have the rank, pay, and emoluments of a Colonel of Cavalry, and who shall, under the Director-General, have the general supervision of all that relates to the sanitary condition of the Army, whether in quarters or in camps, and with the hygiene, police, discipline, and efficiency of field and general hospitals under such regulations as may be hereafter established. There shall be eight Sanitary Inspectors, who shall have the rank, pay, and emoluments of a Lieutenant-Colonel of Cavalry, and who shall be charged with the duty of inspecting the sanitary condition of quarters and camps, of field and general hospitals, and who shall report to the Sanitary Inspector-General, under such regulations as may be hereafter established, all circumstances relating to the sanitary condition and wants of troops and of hospitals, and, to the skill, efficiency, and good conduct of the officers and attendants connected with the Medical Department. There shall be not exceeding forty Surgeons of the first class, who shall have the rank, pay, and emoluments, each, of a Major of Cavalry, and who shall ordinarily be assigned to staff, bureau, and hospital duties. There shall be not exceeding fifty Surgeons of the second class, who shall have the rank, pay, and emoluments, each, of a Captain of Cavalry, and who shall ordinarily be assigned to duty with regiments. And there shall be not exceeding one hundred Assistant-Surgeons, who shall have the rank, pay, and emoluments, each, of a first Lieutenant of Cavalry, and who shall perform such duties as are now required of assistant-surgeons. There shall be not exceeding one hundred Medical Cadets, who shall not be less than eighteen, nor more than twenty-three years of age at the time of entering, who shall be examined by a Board of Medical Officers in such branches of medical sanitary science as the Director-General may order. After three years of continuous service, and on producing proper testimonials of character, from the medical officers with whom they have served, they may be examined for promotion by a Board of Medical Officers of the army. They shall have the rank, pay, and emoluments of the highest

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grade of non-commissioned officers of the army. There shall be as many Hospital Stewards as the exigences of the service may require from time to time to be designated by a Sanitary Inspector on the recommendation of the senior-surgeon of the post, division, regiment, or military department where their services may be required, and they shall have the rank, pay, and emoluments of first-sergeants of cavalry.

SEC. II.—Be it further enacted, that immediately after the passage of this act, it shall be the duty of the President to select from the medical corps of the army suitable persons to fill the offices of Director-General, Sanitary Inspector-General, and Sanitary Inspectors, provided that no one shall be appointed to either of said positions who shall have attained the age of sixty years.

SEC. III.—And be it further enacted, that promotion in the medical corps, up to the grade of Surgeon of the first class, inclusive, shall be by seniority, but that the grades of Inspector-General, Sanitary Inspector-General, and Sanitary Inspectors shall be filled by selection from the whole corps, and by such officers as shall have shown their peculiar fitness for such position.

SEC. IV.—And be it further enacted, that the Surgeons of the first and second classes provided for by the first section of this act, shall be appointed from the medical corps of the army as at presnnt organized, and in accordance with requirements of Section III. of this act, and that the consequent vacancies in the grade of Assistant Surgeons shall be filled by appointment from civil life; provided that no one shall be appointed an Assistant Surgeon in the army or promoted to the grade of Surgeon of the first or second class until he shall previously have been examined by a board of Army Medical officers, and found qualified, physically, morally, and in medical and sanitary attainments, for the office, and the adequate performance of its duties.

SEC. V.—And be it further enacted, that so much of the act of
that allows additional rations to Surgeons and Assistant Surgeons upon the completion of ten years' service in their respective grades be, and the same is hereby repealed.

SEC. VI.—And be it further enacted, that every medical officer of the army who has attained the age of sixty-five years, or on attaining that age, shall be retired from active service, and shall be entitled to recieve the pay and emoluments allowed to officers of corresponding rank, by the act of

SEC. VII.—And be it further enacted, that all acts and parts of acts inconsistent with the provisions of this act, be, and the same are hereby repealed.

THE NEW YORK STATE MEDICAL SOCIETY meets at Albany on the 4th day of February. We shall publish in the February number full proceedings, as we have heretofore done.

WE ARE constantly receiving letters in which are omitted the County and State; hence we are unable to reply. Subscribers and correspondents are especially requested to write plainly the Town, County, and State, in their letters.

BOUND VOLUMES of the *Journal of Materia Medica* for 1859, 1860, and 1861, will be forwarded for $1 each, postage paid.

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THE

JOURNAL OF MATERIA MEDICA.

DEVOTED TO

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Alteratives.

BY JOSEPH BATES, M. D.

Conium Maculatum.

Description.—It belongs to class *Pentandria*, and order *Digynia*.

Generic Characters.—Carpels five ribbed; ribs at first crenate with flat intervals between them; germ ovate, gibbous; perianth entire; petals unequal, cordate, inflexed; general involucre about three to five leaved; partial ones mostly three leaved, unilateral.

Specific Characters.—Stem very branching, spotted; leaves very compound; carpels striate; flowers white; blooms in June and July. The leaves and seeds of this plant are officinal, yet all its parts contain a peculiar principle, *conia*, on which depends its medicinal properties. The whole plant exhales a strong and fetid smell, which has been compared to that of musk, of copper, of mice, and of cat's urine. Dr. Stille describes conia, when pure, "as a yellowish, oily-looking, transparent liquid, lighter than water, of a penetrating smell, resembling the combined odors of tobacco and mice, and of an acrid, nauseous, and tobacco-like taste. It is very volatile, is slightly soluble in water, but less in warm than in cold water, and readily dissolves in alcohol, ether, and fatty and essential oils. Its reaction is alkaline, and with acids it forms combinations which crystallize with difficulty, are very soluble in water, and extremely poisonous."

Medical History.—The Conium is a native of Europe, and has

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been introduced into this country, where it is now naturalized. It grows along the highways in all parts of New England, in the Middle States, and in some of the Southern. It is a biennial plant; umbelliferous, having a whitish, fleshy, fusiform root, and an erect, herbaceous, and branching stalk, from three to five feet in height, smooth, and of a bright green, spotted with purple, whence the name maculatum applied to the plant.

The plant has at different times been known by a variety of names; often been called *cicuta*, which belongs to a different genus. Its popular names have been *hemlock*, *spotted hemlock*, *poison hemlock*, and by some called *poison parsley*. It was well known in ancient times, though but seldom if ever used as a remedial agent. Its internal administration as a medicine is of recent date. It has been the agent of certain governments for destroying political offenders. The clearest description of its poisonous effects that has reached modern times is contained in the narrative of the death of Socrates. After swallowing the poisoned draught, "he was directed by the executioner to walk about for a short time; when he felt a sense of heaviness in his limbs, he lay down on his back; his feet and legs first lost their sensibility, and became stiff and cold; and this stage gradually extended upwards to the heart, when he expired convulsed."

The description of the symptoms preceding the death of Socrates, correspond with those as stated by DIOSCORIDES as resulting from poisoning by hemlock. He mentions vertigo, confused vision, hiccup, disturbance of the mind, cold extremities, and, lastly, convulsions. NICANDER adds to this description, "a sense of suffocation."

Many doubts have been entertained whether the Athenian state poison was in reality common maculatum, or some species of cicuta; but several circumstances appear to sustain the more received opinion. On the one hand, the failure of Conium maculatum and its preparations to produce poisoning, or, indeed, any sensible phenomena, only proves that they who witnessed such failures must have experimented with an inert material; and, on the other hand, the stronger the preparation of the drug employed by others, the more nearly did the phenomena resemble those above recorded. DIOSCORIDES says that the powers of the plant differ very much, according to the locality, and he mentions

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Athens as one of the localities where it is most powerful; and MATTHIOLUS states as a notorious fact that the Italian is inferior to the Greek Conium.

Dr. SIBTHORP, found Conium maculatum growing in great abundance between Athens and Megara, but neither Cicuta virosa nor other analogous plants, whose effects might be mistaken for those of spotted hemlock, were to be discovered in that region. It appears that, as different localities in Greece produced Conium of unequal strength, so, in general, that which grows in the northern countries of Europe is very much feebler than the southern plant. This circumstance must be added to the others, which explain the want of uniformity in the results of experiments made to test the virtues of Conium, and the conflicting opinions respecting it of authors both ancient and modern.

DIOSCORIDES directs that the juice should be obtained from the stalk and seeds before they are withered, and that it should be dried in the sun. This latter direction is of importance, for a very moderate degree of artificial heat decomposes and drives off the conia which it contains. The same author recommends Conium as an anodyne for all pains, and as useful in erysipelas, and phagedenic ulcers. The bruised plant he directs to be applied upon the genitals as a remedy for nocturnal pollutions, and upon the breasts of girls to prevent the development of those organs. PLINY'S statements are to the same effect. AVICENNA and SERAPION prescribe a Conium plaster to resolve tumors of the mammæ and testicles, and to prevent the secretion of milk.

ETTMULLER, PARE, RAY, and LEMERY recommend this plant, when bruised and applied in the fresh state, to scirrhous and other tumors.

RENEAULME, a physician of Blois, gave it internally to remove visceral obstructions.

WYER, DE HEERS, and RATHLAW, in the seventeenth and eighteenth centuries, used Conium in venereal affections, and also in many cutaneous diseases.

STŒRCK published his treatise on this remedy in 1760, in which he claims that numerous cases are reported of scirrhous tumors, chronic abscesses, and ill-conditioned ulcers, cured by it. He also believes in its efficacy to remove cancers. This exaggeration of the remedy caused a reaction of professional opinion against its

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use, and after enjoying for many years an almost unlimited popularity, it was found to be nearly valueless in cancerous affections, and it therefore came to be neglected, even in diseases in which it was really efficacious. Of late years the profession has to some extent recovered from the unjust prejudice entertained against the medicine, for it cannot be denied that such evidences of its curative virtues abound as to entitle it to a prominent place in the materia medica.*

Action on Animals.—It is said that some animals can browse on Conium with impunity. Rabbits and horses are mentioned as possessing this immunity. A horse has taken three pounds and a half of the plant without injury, yet in another instance the decoction of four ounces, proved fatal; which demonstrates that the horse cannot be considered as possessing an immunity from its deadly poison. It is related that asses which feed upon the plant fall into so deep a stupor that they have been taken for dead, and even half flayed before the mistake of the operators was discovered. Oxen, wolves, and dogs are said to be easily affected by Conium; but dogs, because they vomit readily, generally escape with their lives, although they may remain tremulons for several days.

Dr. CHRISTISON is of opinion that Conium does not destroy sensibility, but, by paralyzing the muscles of expression, prevents the subject of experiment from betraying any outward sign of pain. The toxical phenomena are recorded by NIM in the following order: Paralysis of the voluntary muscles, with occasional slight convulsions; then paralysis of the respiratory muscles of the chest and abdomen; and, finally, cessation of the action of the diaphragm.

According to the experiments of GRIGER and CHRISTISON conia is acknowledged to be a deadly poison for all species of animals. No poison, with the exception of prussic acid, excels conia in the subtlety and rapidity of its operation.

Conium is classed with narcotics by some authors, and very

* I have copied, in giving the medical history of this plant, quite largely from Dr. STILLE'S Therapeutics and Materia Medica, which I regard as one of our best standard American works. I shall, also, without additional notice, avail myself of the benefit to be derived from its perusal, in my subsequent remarks upon Conium.

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properly. It is admited to possess valuable alterative properties also; and some attribute to it a third property; therefore, the action of this plant would appear to introduce it into no less than three distinct groups or classes. Its narcotic power, operation or effect, being clearly identified, would entitle it to that classification. Its effects upon the secernents and absorbents, or the glandular system generally, by which a greater or less change of action and condition is produced, entitle it to enter the list of Adenagica or Alteratives.

That peculiar effect or action which produces a preternatural degree of activity, and an augmeuted exertion of the powers and energies, by which any functions are discharged, would cause it to rank with the class Erethistica.

Dr. WILLIAM TULLY says in his Materia Medica, page 1145: "I have too often received testimony to the aphrodisiac effect of good Conium maculatum, and this when administered for entirely different purposes, to have any doubt on the subject." He adds: "In several cases, where persons have been married eight or ten years without offspring, I have known a thorough use of good extract of Conium employed by the party with whom the difficulty was supposed to exist, result in the subsequent birth of one, two, or more children." Again he adds, "when in the course of a few years after marriage, there had been one, two, or more children, and then a suspension of child-bearing for ten or a dozen years; after a thorough course of good extract of Conium taken by the party in fault, I have known one, two, or more children born."

Hemlock and cicuta have been used as popular names for Conium, and it is highly probable they have been used for other plants. In fact, PLINY says that the word cicuta, anciently, was not indicative of any species of plants, but used to denote vegetable poison in general.

That Conium should have had thus far, in the medical world, such a thorny and rugged road to fame is readily accounted for. It has many times been sentenced for the injury of other articles in the vegetable kingdom; and, strange as it may appear, it has been even banished. I shall instance but few of the causes that might be brought forward to account for the changes of sentiment in the medical profession relative to this valuable agent.

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First, I might say that more has been expected from its administration, in consequence of authors who have exaggerated its medicinal powers, than we can claim for any one article in the materia medica. Location affects its quality; that growing in cold, northern countries being less active than that of warmer countries.

Some physicians use it one way, and some in another. Some prefer the dried leaves, some the extract, and others the inspissated juice. These different preparations may be so prepared as to be either valuable or worthless. The leaves should be dried in the shade, so as to preserve their color. If the color be discharged, they are of little use.

Very slight chemical changes frequently change or destroy the efficacy of medicines. It is so with the leaves of Conium, and frequently the color is entirely lost. The plant may be cut too early or too late in the season. The leaves should be gathered just before the petals of the flower fall off. If gathered after the seeds have matured, it is of far less value. If the leaves when cut are allowed to dry in the sun, and have two or three heavy dews fall on them, or a shower of rain, they are worth nothing as a medicine. To destroy this plant, farmers frequently cut it to prevent its seeding. Being a biennial plant, if kept from maturing its seeds two years, consecutively, it is destroyed. I have known individuals gather this article to make extracts and inspissated juice, where farmers had cut it down, and it had remained two or three days, in as many showers of rain, and its color nearly destroyed. From such extracts, who could judge of the value of Conium? Physicians who purchase this article, frequently use such worthless preparations, proclaim it inert, and lose all confidence in the use of it. Those who have been familiar with its use know very well that different purchases differ greatly in complexion and odor, and likewise in their properties as medicine. They sometimes procure an article that their patients might take in dram doses, daily, with little or no appreciable effects.

The expressed, inspissated juice is far more uniform in its operation than any other preparation—far preferable to the extract; but even this, as sold in the shops, is very variable. The plant may have been cut too late or too early in the season; or, if cut at the proper time, it may have been suffered to remain too long

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in heaps before used, or washed in showers of rain. The juice should be expressed the same day the plant is gathered, and exposed to no other heat than solar. It should be inspissated in shallow earthen vessels, but never in earthen vessels glazed with lead. I have known the juice ferment in a few days, and acid form, which distroys its virtues as a medicine. It should be inspissated on common table plates, and its color remains unchanged.

EDWARDS and VAVASSEUR, in their Materia Medica, mention that acids considerably diminish the energy of this article. Consequently, fermentation of the plant, when suffered to remain in heaps too long, or the fermentation of its expressed juice, must deteriorate it purity and injure its effects.

I use considerable Conium in my practice, and when I have a good extract, or a good inspissated juice, I am no more liable to fail in securing its effects upon the system, than I am with opium or calomel. This plant possesses very considerable and very efficient deobstruent properties, as I previously remarked. It operates by way of eminence upon the liver, increasing its secretions, and, by this effect, many times serves as a laxative for the bowels. It combines with its deobstruent properties, as before stated, very decided narcotic qualities, which are evinced by its allaying morbid irritability and irritation, morbid sensibility and sensation, restlessness and jactitation. It is recommended upon the highest authority in the treatment of neuralgic affections. In the treatment of such patients, I frequently combine equal parts of conium, hyoscyamus, and phosphate of iron, given in four-grain pills, and repeated once in thirty minutes until the patient obtains relief from pain, or its specific effects upon the system require its discontinuance.

Very much depends upon the management of an article. We may make good selections of medicinal agents for the treatment of a disease, yet fail to cure for want of judgment, experience, or skill, in their appliances. Conium may be combined to advantage with the hydriodate of potassa in some stages of phthisis and strumous affections. Dr. GABSON speaks of its efficacy in the treatment of goitre, and it is highly recommended in chronic rheumatism, secondary syphilis, scrofulous tumors, and ulcers.

FOTHERGILL, RUTTY and FARR attribute to this article anti-

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scrofulous virtues, but VOGT has pointed out with more precision the conditions under which it is useful. Thus, he affirms that while the medicine may be relied upon in scrofula of the skin and external lymphatic glands, and in cutaneous eruptions and indurations that effect persons of light complexion, delicate skin, and irritable temperament, it is not advantageous in those forms of the disease in which cachexia and an inflammatory tendency of a low grade are combined, producing emmaciation, debility, dyspepsia, etc. Indeed, it is not to be thought of in such cases, except in conjunction with bark and iron.

NEUMAN restricts the agency of this medicine to scrofula of the vascular organs, and praises it especially in strumous ophthalmia.

Dr. BANDELOCQUE reports very favorable results of its employment in the cure of children affected with enlarged and ulcerated glands, with fistulous sinuses, abscesses, etc. He prescribes an alcoholic extract of Conium, in gradually increasing doses, until the specific symptoms appeared, which he maintained in a slight degree for a week or more.

Authors speak of tumors of the liver, the mesentery, the uterus, the mammæ, and the stomach, as being cured by this agent. It is recommended in the treatment of jaundice.

TROSSEAU cured two cases of ascites, by the long-continued use of Conium poultices to the belly,—one caused by chronic peritonitis, and the other by tumors in the abdomen. The cure was accomplished in three months, and in the last-mentioned case, the tumors disappeared entirely.

The mammary gland has been known to cease secreting, and to become atrophied, under the influence of Conium.

AVICENNA directed plasters of Conium to prevent the secretion of milk. GUERSENT says the drug given internally has produced a like effect. RICHTER recommends it for the same purpose.

Dr. S. W. WILLIAMS, of Deerfield, Mass., has treated many cases of diseased mammary glands with Conium successfully. Some of his cases are described as real open cancer. The constitution was much affected, and the pain in the breast intolerably severe. The stench was so great that the attendants could not stay with her; yet it was perfectly cured with Conium. The treatment consisted in the application of a carrot poultice, or of the pond-lily sprinkled with the powdered leaves of Conium, and the

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internal use of the extract of Conium, of which the dose was gradually increased until constitutional symptoms were produced.

RUTTY reports two cases, one of which the sore extended from below the eyelid to the angle of the mouth; the other from the ear to the lip and the nose, destroying a part of each; the discharge from both was sanious and fetid. Both were cured by Conium in doses gradually increased until its characteristic intoxication was produced.

FANTONETTI has published cases which show that baths of the infusion of Conium are very efficacious in the treatment both of chronic and acute diseases of the skin.

In the treatment of tinea capitis a decoction of hemlock leaves has been used with perfect success.

Dr. WOODARD, Superintendent of the Massachusetts Insane Hospital, a few years ago made favorable mention of Conium in the treatment of some forms of melancholy; and in chronic diseases of the stomach and digestive organs, attended with uneasiness, restlessness, watchfulness, and nervous pains, as an auxiliary in accomplishing a cure. A lady under the care of Dr. W., was in the deepest melancholy, imagining that she had a hole in her stomach, and that all the food she took was impacted in her abdominal cavity. Her menses were suspended, and she had an internal tumor as large as a quart bowl. After using for some months extract of Conium with carbonate of iron, her delusion vanished, her menses returned, and the tumor gradually diminished, and finally disappeared.

FOTHERGILL strongly recommends this drug in the treatment of neuralgia and rheumatism. Dr. JAMES JACKSON, of Boston, states that his experience coincides with that of Dr. FOTHERGILL.

Dr. NELIGAN affirms that in both these diseases, and in senile gangrene, he has employed it extensively both in hospital and in private practice, and has met with very few instances, indeed, in which it failed to afford relief.

Conium has been found by many authors to be useful in photophobia, especially in that distressing form of it which exists in scrofulous ophthalmia. DZONDI, KOPP, and OTTO, have reported numerous cases of this sort.

I have treated several cases of gonorrhœa successfully with

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Conium. Many physicians now prescribe this article for that malady.

It would appear obvious from cases stated to have been cured by Conium, that in many instances, physicians fail in curing their patients, by not bringing them sufficiently under the specific influence of this medicine, or by abandoning its use too soon. Months may be required for its continuance in many instances to effect a cure.

Conia, says Dr. STILLE, has of late been used internally for the diseases to which Conium is applicable; and cases are reported by German practitioners of its successful employment, both internally and externally, in painful and convulsive affections and glandular disorders. The doses varied from one-sixtieth to one-twentieth of a grain; or from one-twentieth to one fifteenth of a grain was dissolved in six ounces of distilled water, and three tablespoonfuls of this given daily.

As contraindications for the use of Conium, and especially of its active principle, may be stated a tendency to paralysis, organic diseases of the heart, an apoplectic constitution, and great debility resulting from chronic disease.

Antidotes.—In several of the most authoritative works, emetics are recommended for poisoning by Conium and its preparations, and cases are reported in which tartar emetic was administered according to these general directions, and the patients died.

If it is judged proper to evacuate the stomach, a stimulant emetic, such as mustard is to be preferred to one whose tendency, like that of the poison, is to produce fatal sedation.

Warm oil, with a small portion of ipecacuanha, may also be employed.

The ancients regarded wine as the proper counter poison of Conium. All the ancient authorities agree in the opinion that stimulants are the essential remedies for poisoning by hemlock, and the same treatment has been revived by physicians of the Italian school, who direct wine, brandy, and other agents of the class of diffusible stimuli.

Drs. H. M. EDWARDS and VAVASSEUR regard acids as incompatible with Conium; as diminishing its energy; and consequently should be regarded as an antidote.

Dose.—This must in all cases be regulated by the activity of

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the article administered. It will be safe to begin with the extract in one-grain doses, and in most cases should be gradually increased to four-grains or upwards.

I find as great a degree of uniformity in strength in TILDEN'S extract, as in any that I have used.

Whatever preparation of Conium is used, the dose should be gradually increased until unequivocal symptoms of its operation are manifested; then, and not before, should the daily increase of the dose be suspended or diminished. In no other manner is it possible to have assurance that the preparation employed is really active.

It would be well if every physician should remember these closing remarks relative to one of the most useful agents in our profession.

Alteratives require some diversity of management in acute, in comparison with chronic disease. In acute disease says an author, they should be given much more efficiently, and their use need not be continued for near so long a time as may be necessary in a chronic disease. In acute disease, a larger quantity of almost every alterative will be required in a given time, to produce the same degree of operative effect, than would be necessary in a chronic case. In an acute disease, Conium will accomplish all that it is capable of doing in a comparatively short time, after which it should be discontinued, and some agent of a different character employed.

Dr. TULLY'S remarks in his Prœm to the class Adenagica, are apposit to the use of Conium. "As a general rule," he remarks, "in order to obtain the best remedial effects of the adenagics in acute diseases, they should be pushed, till they produce a greater or less degree of their regular operative effects. It is true we sometimes succeed in curing diseases without producing such effects, at least obviously, but we often fail. If this precept is well founded, it will be evident how important it must be for the practitioner to make himself familiar with all the operations of each individual adenagic which he ever expects to employ in his practice. In short, the adenagics require the same management in this respect, in all the acute diseases to which they are appropriate, that Cinchona requires in intermittent. It is well known

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as a general rule, that Cinchona when employed in intermittent must not be suspended immediately on the interruption of the paroxysms of the disease, because by that method of management the paroxysms, in many instances, would return again; but in order to effect a permanent cure, it must be continued so long after the interruption of the paroxysms as to obviate entirely all predisposition to them."

A Case of Epilepsy, Trephined.

By H. G. Leigh, M. D., Petersburg, Va.

Wm. Bird, free negro, black, aged forty years, received a blow from a brick about two years since, which caused a slight depression in the anterior inferior angle of the parietal bone, on the left side. He states that he was insensible for some time after receiving the blow. The wound healed up without much trouble. He had been healthy up to the date of the blow. Since then he has been subject to epileptic seizures, returning every few weeks.

He has been treated by various physicians, in various ways—bled, cupped, leeched, and salivated; from all of which he derived no benefit.

He came to the Petersburg Infirmary on February 16th, having had a recurrence of the epileptic fits every two weeks for the last two months.

There was an evident depression in the anterior inferior angle of the parietal bone of the left side. He was put upon low diet, and ordered a mercurial purge every third night. The fits returned regularly every two weeks.

March 10th, he was operated on by Dr. J. J. Thweatt, assisted by Drs. Dunn and Leigh, with Galt's new conical trephine. There was a great deal of hæmorrhage, requiring the ligature of two small arteries. The trephine proved to be far superior to the old one, now in general use. The membranes of the brain were not injured in the least; in fact, they cannot be hurt by this instrument. He was trephined over the anterior inferior angle of the parietal bone, immediately over the middle meningeal artery, which could be seen very plainly after the operation.

After taking out the button of bone, the wound was brought together with adhesive straps, and water dressings applied. That evening he had a slight fit, which lasted only a few minutes. The wound healed up by first intention. He has had no sign of an epileptic seizure since the evening of the operation.

We would recommend Dr. Galt's conical trephine to all operators, in place of the old instrument.—*Am. Med. Monthly.*

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REPORT AND PROCEEDINGS

OF THE

Annual Meeting of the New York State Medical Society,

HELD AT THE CITY HALL, ALBANY, ON

TUESDAY, WEDNESDAY, AND THURSDAY, FEBRUARY 4TH, 5TH, AND 6TH, 1862.

The 55th Annual Session of the New York State Medical Society commenced at the City Hall, Tuesday morning.

Dr. E. H. PARKER, of Poughkeepsie, President of the Society, called the meeting to order, and delivered the opening address, as follows:

GENTLEMEN: It is my duty to offer to you my sincere thanks for the honor you have conferred upon me in selecting me as your presiding officer. A chair which has been filled by such men as Romayne, Stearns, the Becks, and by those living worthies whose presence forbid me to enumerate them, confers honor upon any one who occupies it.

My second duty is the sad one of announcing to you formally, the death of my immediate predecessor in this office—Dr. Daniel T. Jones. When we parted with him at the close of the session over which he presided with so much wisdom, no one anticipated so speedy an end to his life. So full of vigor, so redolent of health, it seemed as if he would have borne for years the assaults of sickness. It is not my place to eulogize him, but this I may say—that in my limited acquaintance with him, I learned to respect and admire the manly truthfulness of his whole character, which served as a worthy setting in which the talents entrusted to him were made to show their charming lustre.

The political events of the last year, which have effected more or less every pursuit, I might say every family circle, of our country, have produced a marked effect upon our profession. Military surgery has suddenly assumed an unusual prominence, and there are, I suppose, few of us who have not reviewed the topics which especially interest the practitioners who have the professional charge of soldiers. The modifications required in the treatment of gunshot wounds in consequence of the effects of the new projectiles differing from the old; as well as those which come from the use of anæsthetics have been among the subjects which have been earestly studied. But it is to be borne in mind that the medical officer of the army, so far as he acts as a surgeon proper, is almost a specialist, while a large share of his duties are purely medical. No regiment is constantly going into action, and the shafts of disease are far more fatal to soldiers than the bullets of the enemy. As a defence against the latter, the engineer is required to throw up his earth works; and it is equally the duty of the medical officer to see to it that the men under his charge are as far as possible protected from the former. Prophylaxis, whether it be by using quinine to prevent malarial disease, or by compelling attention to the sinks and other sources of effluvia to avoid camp dysentery; or by seeing to it that cleanliness of the person is enforced as an especial defence against the invasion of typhoid diseases—or by a careful supervision of

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the means and modes of cooking—prophylaxis, I say, is a far more important study that that of the latest way of doing an amputation. The character and mode of the operation required from a gudshot wound is usually settled by the ball that inflicts it, and that with a profound disregard of the theories and dogmas of the schools, whether they be English or French, German or Russian, compelling one to take his flap, and to seperate the bones when he can, not when he would.

I am aware that I speak to masters of the profession. But do not the masters sometimes overlook these apparently little things, which are in reality the truly great things of life. To whom does the world look up to as the more eminent army surgeon—to the man who has done the most operations—or the man who has kept the troops under his charge in the highest degree of health? Which should each of us prefer to be? I do not doubt that the answer to both questions would be in favor of the operator; and yet any one of us knows it ought not to be so.

How much more danger is there of this false standard of distinction prevailing among them of our profession who are actually in the field. We and they both need to have it impressed upon our minds that amputation is a reproach to our art,—a continued acknowledgment that our skill is not equal to the restoration of the parts. And it injures no one to recall the fact that we have done better if we have prevented an army from being decimated by sickness than if we have made a hundred amputations.

If it seems to any one to be out of place here to refer to these topics, let me suggest that we cannot tell who of us may be called to assume these duties during the coming year. Bonticou, Hoff, McNulty, and Hamilton could not at our last session have supposed that to-day they would be in the field, neither do we now anticipate it for ourselves. But events crowd upon us, and it is well that we should not be unprepared if those changed times should require of us a different use of our professional knowledge.

On one point I take it for granted that we are of the same mind, viz: that the services of each and all of us, are at the command of our country whenever and wherever they are made.

It is a matter of congratulation that our State was, if I am not mistaken, the first to take especial pains that incompetent persons should not assume the duties of regimental surgeons. At an early day all applicants for those professional positions were required to pass an examination which should be in some degree a test of their qualifications. As the adoption of this measure was in consequence of the advice of the surgeon-general of the State, I would suggest that this Society should express their approval of it by a vote of thanks.

The duty a military surgeon owes to the wounded when the battle is lost, is a topic of interest. I am aware that much may be said concerning the claims that the remainder of his regiment may have upon him, to justify him in leaving them to the care of the victors. But it is more in accordance with the spirit of our profession, which is never deficient in bravery or self devotion to

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the good of others, that if the wounded are in any numbers the Surgeon should remain with them. The Surgeons of the victors usually have as much as they can do among their own troops, and if any are neglected it naturally is the prisoners. With the necessary confinement, trifling neglects become serious, and the result of an operation may be entirely different when advised and performed by a known and tried friend, or an avowed enemy.

The very touch of a friendly hand is to a sick prisoner often more than medicine. To all of these, it seems to me, the soldier has a claim, and if he knows he may expect such devotion from his Surgeon, he will fight with less hesitation. These principles hold, of course, only in large engagements, when there are many wounded on both sides.

At the battle known as that of Bull's Run, large numbers of our wounded were collected in a church, and a number of Surgeons of our army were present with them. There was ample time for all to have returned with their forces. A few so improved their time, but the majority remained, and for months suffered all the dangers as well as inconveniences of prison life. True as the latter were to all the teachings of our profession, when to be true was not a slight thing, it seems to me proper that this Society, representing as it does the profession of our State, should mark this conduct with its approbation. I would urge upon you some such expression of their opinion, as may make those gentlemen, whether from our own or other States, feel that their heroism was noticed and applauded by their professional brethren.

I had hoped to lay before you some plan, by the adoption of which the sufferings of war, so far as they concern the wounded men, might be lessened by allowing the surgeons of the contending armies to visit the battle-fields unmolested, on the purpose of caring for the wounded, while at the same time they could superintend the decent burial of the dead. But I have found so many obstacles at the very commencement of the effort that it has seemed useless to go further. Military men are jealous of allowing any foe to go within their lines on any purpose, and it cannot be denied that a spy might pretend to be a surgeon and obtain important information while professing to be occupied in these sacred duties.

On the part of the United States Government, these difficulties could, I believe, have been overcome; but there has been such a strange disregard of the ordinary dictates of humanity on the part of those who are in arms against it, that I have not thought it best to persevere in the attempt. If the Society can devise any way of accomplishing this end, it would be well worthy of it to do so.

Gentlemen, I make no apology for having given this tone to the commencement of our session. I only add that it is my earnest hope, would that I could say expectation, that before another anniversary shall occur, peace may be within all our borders.

The President announced the following as the gentlemen composing the committee on credentials: Drs. Porter, of Oneida, Ferguson of Warren, and Willard of Albany.

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Dr. Bowen moved the appointment of a committee to invite the members of the Legislature, members of the Medical profession, to attend the meetings of the Society. Adopted, and Drs. Bowen and Potter appointed such committee:

Dr. Potter offered the following:

Resolved, That this Society does not hold itself responsible for the doctrines or statements embodied and contained in any paper read before it, or published by it.

Resolved, That whenever the author of any paper presented to, or published by the Society, shall see fit to publish the same in any Medical Journal or periodical, or in a seperate pamphlet form, he be required to publish in connection therewith, the above first resolution; and, on refusing or neglecting to do so, that the offence, and the offending member be subject to the action of this Society.

Dr. S. D. Willard remarked that it was understood that the Society was in no wise responsible for the theories or sentiments advanced by any gentleman, in the papers read by them, and published in the Transactions of the Society; and after a brief discussion the resolutions were laid on the table.

Dr. Didimer presented communications from the Onondaga Co. Society; Dr. Finnell, from the New York Co. Society; Dr. Baker, from the Chenango Co. Society; Dr. Mason from the Kings Co. Society.

The President announced the following Committee on nominations, Drs. D. P. Bissell, of Oneida; S. O. Vanderpool, of Albany; A. Grispell, of Ulster; Douglas Bly, of Monroe; F. C. Finnell, of New York; S. H. French, of Broome; Edward Hall, of Cayuga, and T. B. Reynolds, of Saratoga.

Dr. Bissell offered the following:

Resolved, That the thanks of this Society be tendered to the President for his interesting and suggestive annual address, and that a copy of it be requested for publication in the Transactions of the Society.

Resolved, That a committee of three be appointed to consider and report such action thereon as may be deemed necessary.

The resolutions were unanimously adopted, and Drs. Bissel, Howard Townsend, and Kendall, were named as such committee.

Dr. S, D. Willard submitted a memorial of Dr. Merrit H. Cash, who died at his residence, Rutger's Place, in Ridgebury, on the 26th of April 1861, in the 59th year of his age. Dr. C. had been a member of the Society twenty years, and bequeathed $500 to the Society. The communication was referred to the Committee on Publication.

Dr. Finnell, of New York, moved that Dr. George F. Shrady of New York, editor of the *American Medical Times*, be invited to a seat during the sessions of the Society. Agreed to.

Dr. Findell presented several Pathological specimens, and also read a paper on a case of Peritonitis. Referred.

The Secretary read a communication from the Oneida County Medical Society, covering a preamble and resolutions, adopted by that Society, in opposition to the passage of a law by Congress permitting the introduction of Homœpathic physicians and surgeons into the army. Laid on the table for the present.

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The Secretary presented a communication from the Monroe County Society on the subject of Criminal Abortion, covering the following resolutions:

Resolved, That in view of the enormous increase of criminal abortion and the inadequacy of the present law to properly punish the offenders, this Society request the New York State Medical Society to press upon the notice of our Legislature the memorial presented to them by the American Medical Association on this subject.

On motion the resolution was adopted by the Society.

Recess until 3 P. M.

AFTERNOON SESSION.

The Society reconvened at 3 o'clock.

Dr. Lee presented a communication from the Saratoga Co. Medical Society, and Dr. Mason from the Kings Co. Society. Referred.

Dr. J. V. P. Quackenbush, Treasurer, showing the receipts during the year the have been $294.41, and the disbursements $184.62, leaving a balance in the hands of the Treasurer of $107.79. Report accepted, and referred to Drs. Corliss, Govan and Cotes, to examine vouchers.

Dr. Bissell read a very interesting paper on Paralysis—a sequelar of Diphtheria—Reflex Paralysis.

The subject was discussed by several gentlemen.

Dr. Cotes offered the following:

Resolved, That the bequest of the late Dr. M. H. Cash, to the State Medical Society, amounting to $500, be invested by the officers of the Society as a permanent fund, designated as the "Cash Prize Essay Fund," the interest of which shall be appropriated for a written essay, to be presented annually to the Society, upon some subject connected with the profession, to be designated by a prize fund Committee, appointed by the Society.

Laid on the table for future consideration.

The Secretary presented several communications, which were referred.

Dr. Quackenbush moved that Dr. Garrish, of New York, be requested to prepare a history of Diphtheria, and present it at the next annual meeting of the Society. Laid on the table for the present.

The Society then adjourned until 10 o'clock Wednesday morning.

The following gentlemen were in attendance on the Convention:

Edward H. Parker, Poughkeepsie; Sylvester D. Willard, Albany; Edward Hall, Auburn; Thos. C. Fennell, New York; Abm. Crispell, Rondout; J. Beattie, Geneva; J. O. Van Hoevenburgh, Kingston; Alden March, Albany; J. F. Trowbridge, Syracuse; Jas. V. Kendall, Onondaga county; S. M. Van Alstine, Schoharie county; H. K. Willard, Bern, Albany county; H. N. Porter, Oneida county; Chs. Barrows, Oneida county; S. C. Pettingill, Delaware; W. H. Dudley, Brooklyn; D. P. Bissell, Utica; W. Potter, Montgomery county; B. E. Bowen, Oswego county; Douglas Bly, Rochester; Alex. Ayres, Montgomery county; W. H. Bailey, Albany; A. Willard, Greene county; Jno. D. Watkins, Sullivan county; Geo. Cook, Canandaigua; L. B. Cotes, Batavia; Henry D. Didania, Onondaga county; T. B. Reynolds, Saratoga county; James Lee, Saratoga county; R. Blawis, Washington county; James

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Ferguson, Glens Falls; M. M. Wood, Chenango county; Peter P. Staats, Albany; Samuel Hart, Brooklyn; Darwin Colvin, Wayne county; A Baker, Chenango county; A. D. Hull, Rensselaer county; H. W. Dean, Rouchster; Theo. L. Mason, Brooklyn; John Root, Batavia; H. C. Hendrick, Cortland county; Chas. H. Porter, Albany; Jno. H. Griscom, New York; M. M. Marsh, Onondaga county; Wm. Taylor, Onondaga county; Oliver White, New York; Howard Townsend, Albany; Edmund Arnold, Westchester county; S. H. French, Broome county; Thos. C. Brinsmade, Troy; Jno. Swifiburne, Albany; S. Oakley Vanderpool, Albany; J. N. Northrop, Albany; Hiram Corliss, Washington county; Joseph Bates, Columbia county; H. S. Crandall, Madison county; Ralph Deming, Litchfield, Conn.; Nelson Rusk, Columbia county; Calvert C. Covell, Deleware county; O. E. Lansing, Rensselaer county; U. G. Bigelow, Albany; Alfred Underhill, New York; John P. Garrish, New York; J. H. Case, Albany; F. J. D'Avignow, Clinton county; Henry S. Downs, New York; James Thorn, Troy; Mason F. Cogswell, Albany; Thos. W. Blatchford, Troy; John R. Gregory, Troy; M. H. Burton, Troy; Wm. Govan, Rockland county; M. L. Finch, Saratoga county; N. C. Husted, New York; O. M. Crandall, Alleghany; H. B. Salmon, Columbia county; P. Van Olinda, Albany; A. F. Doolittle, Herkimer; J. V. P. Quackenbush, Albany; H. N. Porter, Oneida county.

SECOND DAY.

The Society was called to order at 10 o'clock A. M., Wednesday.

Dr. White of New York, called up the paper from the Onieda County Medical Society, relating to the employment of Homœopathic Surgeons in the army, presented yesterday.

After being read by the Secretary, Dr. Garrish of New York, presented a communication from the New York Acadamy of Medicine, concerning the following preamble and resolutions sent by Dr. Valentine Mott, for presentation:

Whereas, Petitions have lately been presented to the Senate and House of Representatives of the United States for the employment of Homœopaths as Surgeons in the army; therefore,

Resolved, That the New York Acadamy of Medicine deem it their duty in the interest of the army, respectively to protest again against the employment of such practitioners, for the following reasons:

1st. That the practice wherever subjected to accurate observation has failed to establish itself in any hospital.

2d. That in the countries where it originated and attained its fullest degrees of development it has not been introduced into the army or navy.

3d. That it is no more worthy of such introduction than any other kindred methods of practice as closely ailied to quackery.

4th. That such appointments would dissatisfy and dishearten the medical staff of the army, who understand the true character of Homœopathy, and who have entered the service of the country with confidence that the government would strive to elevate the standard and promote the efficiency of the medical staff—results surely to be defeated by the appointment of Homœopathists.

Resolved, That a copy of the above resolutions be sent to the Hon. Ira Harris of the U. S. Senate, and the Hon. F. A. Conkling of the House of Repre-

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sentatives, with a request that the resolutions be presented to the two Houses of Congress.

Dr. Cotes moved that the resolutions and the subject be referred to a committee for consideration.

Dr. Potter moved, as an amendment, that the resolutions of Dr. Mott be adopted as the sentiments and views of the State Society.

After discussion, Dr. Potter's amendment was lost, and the motion of Dr. Cotes to refar the subject to a committee was adopted, and Drs. Cotes, Townsend, of Orange, and Dr. Squibb appointed such committee.

A communication was presented from the Kings County Medical Society and referred to the Publication Committee.

Dr. Squibb, of Kings county, from the especial committee appointed at the last annual meeting of the Society, to consider the subject of urging upon Congress the passage of a law to prevent the importation of adulterated and spurious drugs, reported in detail. Referred to the Committee on Publication.

Dr. Squibb, from the Committee on the Revision, Publication and control of the United States Pharmacopia, presented their report. Referred to Publication Committee.

Dr. Corliss, from the committee to audit the accounts of the Treasurer, reported that they had discharged that duty, and found the books and papers correct. Report accepted and committee discharged.

The Secretary presented a biographical memoir of Dr. Edson Carr, by George Cook, M. D.

The Secretary also presented a list of Surgeons engaged in the Volunteer service. Referred to Publication Committee.

Dr. Alden March extended an invitation to the members of the Society to visit the Medical College and witness his operations. Invitation accepted.

Dr. Elmund Arnold, of Yonkers, N. Y., read a very valuable and highly interesting paper entitled "Medical Provisions for Railroads, as a Humanitarian Measure, as well as a source of Economy to the Companies." Referred to the Publication Committee.

Dr. Mason, of Brooklyn, presented a preamble setting forth that the Health Laws of this State have not kept pace with the rapid, modern progress of Sanitary Science, and offering a resolution as follows:—

Resolved, That the bill, now before the Legislature, known as the "Metropolitan Health Bill," meets with the cordial approval of the State Medical Society, as a measure which, though partial in its application to one section of the State, is a step in the right direction, and should be enacted into a law without delay.

Dr. Griscom, of New York, explained the nature of the proposed law, and the great necessity for its passage.

The resolution was adopted unanimously.

Dr. Brismade offered the following resolution:—

Risolved, That a committee of five be appointed to draft a Sanitary Code for the State of New York, and submit the same to this Society, for its consideration, at the next annual meeting.

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Adopted.

Dr. Hutchinson, of Kings, read a paper entitled "Dislocation of the Ischiatic Notch, with Autopsey." Referred to Publication Committee.

Dr. Downs, of New York, read a paper entitled "Synopsis of a case of Peritonitis, occurring in a child, and the administration of large doses of morphine in its treatment." Referred.

Dr. Marsh presented a Pathological specimen of "Cirrosis of the Liver." Referred.

Recess until 3 P. M.

AFTERNOON SESSION.

The Society re-assembled at 3 P. M.

Dr. Van Hoevenburgh offered the following:—

Resolved, That a committee of five be appointed by the Chair to see Dr. Freer, chairman of the Senate Committee on Medical Societies, as also the Medical Committee of the House, and enquire the provisions of the bill incorporating the State Homœopathy Medical Society, and report to this Society what action is necessary in the premises.

Adopted, and Drs. Vanderpoel, Bissell, Blatchford, Bates and Taylor, were appointed such committee.

The Chair announced as the committee on Dr. Brinsmade's Sanitary resolution, adopted at the morning session:—Drs. Brinsmade, Hun, Seymour, Mason, and Griscom.

Dr. Shrady, of New York, offered a preamble setting forth the want of sufficiently speedy medical assistance in cases of Railroad accidents, and offered the following:—

Resolved, That this Society shall appoint a committee to report at the earliest moment, whether any or what action shall be taken by this Society in the premises.

Adopted,, and Drs. Shrady, Arnold and Willard appointed such committee.

Dr. Blatchford announced a communication from the New Jersey State Medical Society, relative to the appointment of a delegate to the New York State Society; and moved the appointment of a delegation of six to attend the next annual session of the New Jersey Society. Agreed to.

A communication was received and read from Dr. Elisha Harris from the committee on the Medical Topography of the State, informing the Society that it will not be possible to complete the work for the present session. Accepted.

Dr. Swineburne, of Albany, then read his paper, "Post Mortem Notes of a Case of Supposed Murder," (the celebrated Budge case). The paper was listened to with great attention by a very large audience of medical gentlemen, and the views and theories advanced by Dr. S. were fully sustained by several distinguished surgeons whose letters were read.

Dr. Squibb, from the Committee on the subject of introducing Homeœopathy into the Army, reported that they had examined the subject carefully, and advised that all unnecessary action that might be construed into persecution be avoided; that the Committee feel satisfied that the government will

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take no step that can need the action of the Society. The report was accepted and adopted.

Dr. Lee offered a resolution that the Code of Medical Ethics of the Society be amended by striking out the words "surgical instrument or," so that a surgeon inventing and patenting any improvement in surgical instruments shall not be liable to expulsion, as under the Code of Ethics now in force.

After discussion, the subject was laid on the table.

Adjourned until Thursday A. M.

The following gentlemen registered their names Wednesday:

T. J. Green, Oswego county; C. M. Crandall, Allegany county; A. White, Oswego county; Wm. F. Carter, Albany; J. K. Chamberlayne, Madison county; G. Botsford, Greene county; P. Brooks, Broome county; Griffin Sweet, Herkimer county; P. Stewart, Westchester county; A. S. Coe, Oswego county; J. K. Leaning, Otsego county; John I. Myers, Albany; J. M. Delamater, Albany; J. L. Babcock, Albany; Henry S. Case, Albany; M. L. Mead, Albany; Peter Faling, Gasport; Henry March, Albany; E. S. Lyman, Chenango county; N. H. Dering, Utica; Isaac E. Taylor, New York; Edward R. Squibb, Brooklyn; Frederick M. Barrows, Oneida county; Homer Green, New York; Geo. F. Shrady, New York; W. P. Townsend, Orange county; J. E. Casey, Herkimer county; C. L. Mitchell, Brooklyn; Wm. Lamont, Schoharie county; Hiram Adams, Onondaga county; J. B. Cowles, Greene county; J. W. Greene, New York; Jas. H. Curry, Westchester county; Freeman Tourtelot, Saratoga county; Thomas Hun, Albany; J. Linsly, New York, P. McNaughton, Albany; J. C. Hutchinson, Brooklyn; J. M. Minor, Brooklyn; J. K. Bates, Jefferson county; J. P. Gray, Oneida county; H. A. Carrington, Duchess county; John P. Witbeck, Albany.

THIRD DAY.

The Society convened at 9 o'clock.

Dr. Fennell presented a communication from the New York County Medical Society. Referred.

Dr. Willard presented a communication from Dr. E. R. Peaslee, entitled "Mechanical Appliance on the treatment of Uterine Affections." Referred.

The committee on nominations reported as follows, and the gentemen named were elected to the respective offices:—

For President—Thomas Hun, of Albany.

For Vice President—D. P. Bissell, of Utica.

For Secretary—S. D. Willard, of Albany.

For Treasurer—J. V. P. Quackenbush, of Albany.

Committee on Publication—Drs. Thomas Hun, Sylvester D. Willard and Howard Townsend.

For Censors—Southern District—Wm. Govan, Joel Foster, and Elisha Harris.

Eastern District—B. P. Staats, Thos. W. Blatchford, Peter McNaughton.

Middle District—Jenks S. Sprague, Chas. B. Coventry, and A. F. Doolittle.

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Western Division—Alex. Thompson, H. W. Dean and Edward Hall.

Committee on correspondence—John H. Griscom, W. P. Townsend, Wm. P. Seymour, Hiram Corliss, Luther Ginteau, John G. Orton, Jonathan Kneeland and J. W. White.

For Permanent Members—1st District, E. R. Peaslee, T. C. Finnell; 2d District, Abm. Crispell, John D. Watkins; 3d District, Sylvester M. Van Alstyne, Samuel H. Freeman; 4th District, Theo. L. Mason, Henry A. Carrington; 5th District, I. V. Cobb, A. G. Purdy; 6th District, P. Brooks, E. S. Lyman; 7th District, Harvey B. Wilber, Joseph Beattie; 8th District, John Boardman, Charles E. Van Auden.

Nominated for Permanent Membership—1st District, Alfred Underhill, Jared Lindsley, John W. Green, Oliver White, John P. Garrish, J. H. H. Burge; 2d District, ——— Durrie, I O. Van Hovenburgh, Isaac E. Taylor; 3d District, John Swinburne, C. H. Porter, W. H. Bailey, A. D. Hull; 4th District, James Ferguson, Alex. Ayres; 5th District, Hiram Adams, Wm. Taylor; 6th District, J. K. Chamberlain, W. H. H. Parkhurst; 7th District, H. W. Dean, ——— Cook; 8th District, J. M. Miner, D. Bly.

Elected Honorary Members—T. G. Geoghan, of Dublin, Ireland; Ashbel Woodward, of Conn.; John Jeffries, of Boston; Wm. Carpenter, of London; Henry Bronson, of New Haven.

Nominated for Honory Membership—R. S. Saterlee, of the U. S. A.; Joseph Carson, of Philadelphia; S. W. Butler, of Philadelphia; Wm. Jewell, of Philadelphia; N. S. Davis, of Chicago; R. R. Cuyler, U. S. A.; Ralph Isham, Chicago.

Delegates to the American Medical Association—T. L. Mason, C. V. Barnett, A. Crispell, H. W. Dean, T. F. Jenkins, Thos. Hun, S. O. Vanderpoel, Charles E. Van Auden, Charles Budd, D. P. Bissell, E. H. Parker, E. R. Squibb, Charles S. Wood, I. O. Van Hovenburg, Wm. Govan, T. C. Brinsmade, H. Corliss, Henry S. Downs, W. P. Seymour, E. R. Peaslee, —— Colvin, Joseph Beattie, George A. Dayton, Sanford R. Hunt, Joseph C. Hutchison, Henry C. Gray, Thomas W. Blatchford.

Delegates to National Quarantine Sanitary Convention—E. Hall, T. L. Mason, D. Bly, J. H. Griscom, Elisha Harris, Mason F. Cogswell, J. V. P. Quackenbush, J. G. Adams, Hiram Corliss, Howard Townsend, J. M. Minor, Wm. Govan.

Delegates to the Connecticut Medical Society—N. C. Huested, J. G. Adams, Joseph C. Hutchison, S. D. Willard, H. D. Bulkley, S. T. Hubbard.

Delegates to New Jersey Medical Society—Thomas W. Blatchford, —— Dudley, J. A. Brady, D. Bly, W. T. Townsend, J. M. Green.

Dr. Shrady, from the special committee on the subject of the measure for a thorough medical provision for railroads, reported a resolution favoring the bill before the Legislature, which was adopted.

Dr. Willard presented a paper entitled "The Protective or Prophylactic, Preventive, and some points in the curative uses of Quinine in miasmatic localities, and miasmatic districts." Referred.

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Dr. C. A. Lee presented a paper entitled "On the means of arresting hemorrhage, from wounds received in battle, with a history of the measures heretofore resorted to for that purpose." Referred.

Dr. C. H. Porter presented a paper entitled "Arsenical Poisoning." Referred.

Dr. Stewart offered a resolution to appoint a committee of one from each Judicial district, to ascertain and report as to whether it is true that Homœopathic practitioners are in the habit of resorting to the same medicine and doses as in Alopathic treatment, and whether they defer to their patients to decide what treatment they prefer.

Dr. S. D. Willard did not think the subject worthy the attention of the Society, and spoke warmly against the resolution.

After further discussion the resolution was laid on the table.

Dr. H. H. Burge presented a new surgical instrument "for the removal of foreign bodies from the Ascophagus and Larynx."

Dr. Bly read a paper on Amputations. Referred.

A resolution was adopted, tendering the thanks of the Society to Dr. S. D. Willard for his valuable compilation of Surgeons in the Volunteer service, and requesting him to continue the same.

The committee to whom was referred the introductory address of the President, presented a series of resolutions:—1st. Applauding the boldness and heroism of our Surgeons who stood by the wounded soldiers at Bull Run; 2d. That those Surgeons, now in bondage, who have declined their parole, on the condition that they would not again serve during the war, receive the thanks and commendation of this Society; 3d. That a copy of these resolutions be published in the Washington papers; 4th. Expressing thanks to Dr. S. Oakley Vanderpoel, Surgeon General, for his indefatigable efforts towards supplying our army with the best of physicians, and also to Drs. March, Hun, and Cogswell for the thoroughness of their system of examinations; 5th. Resolutions of condolence and sympathy on the death of the late President, Dr. Daniel T. Jones:

The resolutions were unanimously adopted.

The usual resolutions of thanks to the retiring officers were adopted, and the Society adjourned *sine die.*

[From the Med. and Surg. Reporter.]

Diphtheria; its Nature and Treatment.

I am certain that any remedy employed in this disease by the physician, that will not tend to aid nature in expelling such impurities as might impede her ingenious efforts, would, according to the common acceptation of the adage, be locking the door and leaving the rogue within. On those patients whom I have treated for diphtheria, an efflorescence invariably showed itself about the fifth day, most commonly on their epigastrium and along the sternum

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and trachea. This eruption infallibly denotes the approach of a favorable crisis. I have witnessed some that were unsuccessfully treated, who, during their illness, did not exhibit any of this efflorescence; but scarcely was the vital spark extinguished when a profuse eruption made its appearance on various portions of the body, of a confluent nature, exhibiting a dark, purple hue, and yielding a fetid odor. Those symptoms induce me to think that diphtheria is an eruptive fever, something analogous to that of erysipelas. I am certain that both of these diseases are made manifest by the action of malaria on the impurities of the general system.

The following are among the remedies I use:—

℞ Calcined magnesia..... ℥ iij.
Syrup of saffron.....f ℥ ss.
Simple syrup.....f ℥ ij.
Oil of peppermint.....5 drops.

Mix. A tablespoonful to be taken every hour until it effects the bowels.

℞ Cochineal and saffron, each ℥ ss.

To be properly triturated in a mortar and dissolved in two ounces of boiling water. Then add half a dram of quinine, one dram of tinct. hyoscyamus, two grains of iodine, two grains iodide of potassium, and two ounces of simple syrup.

A teaspoonful to be taken four times a day.

℞ Iodide of potassium.....
Iodine, of each.....grs. iv.
Tinct. hyoscyamus.....f ℥ ij.
Rain water..... ℥ ij.

Mix. This to be used as a gargle four times a day, as long as any trace of the disease remains.

When the patient becomes convalescent, he should take a wineglassful of the compound decoction of sarsaparilla (U. S. P.) three times a day, for at least twelve days, with the addition of one ounce of lime-water to each pint of the decoction.

EDWARD LYNCH.

LANCASTER, OHIO, Jan. 28, 1862.

On the Elimination of Mercury from the System.

Dr. Schneider has recently made some researches on the elimination of mercury during and after a mercurial treatment, which have given the following results:—

During the internal administration of such preparations, the electrolytic examination of the urine shows always traces of mercury; but the quantities are so small that the amount of urine discharged within twenty-four hours is often not sufficient for a satisfactory result, and the metal must be searched for in the whole of the urine discharged within three to six days. Traces of mercury were also found in the urine of a patient who had not taken any inter-

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nally, but had been treated with mercurial ointment. The elimination of the drug by the urine lasts for some time after the mercurial ointment has been discontinued. In the first week afterward it is invariably found, and in two cases it was even discovered in the fourth and sixth week afterwards. After six weeks, Dr. Schneider has never succeeded in discovering traces of mercury by electrolysis. The elimination of it is not promoted by the administration of iodide of potassium, as the quantity of mercury contained in the urine was not increased, but rather diminished, when the drug was given; and if it was taken a few months after the end of the mercurial treatment, mercury did not reappear in the system, probably because nothing was left behind. One patient, who had suffered with murcury (the last time very energetically, having used twenty drams of ointment, equal to more than 120 grains of mercury), died of pericarditis two months after the third course, and Dr. Schneider could therefore search for mercury in the internal organs. The result was that the bone, the brain, and the spleen, which are generally believed to retain mercury for years, did not contain a trace of it, while the kidneys showed an infinitesimal quantity of the metal, the result of the examination of the liver being doubtful. It is, therefore, evident that mercury entirely disappears from the system a short time after the end of treatment, and cannot, therefore, cause secondary syphilitic symptoms; nor can it be eliminated from the system years after the treatment by Dr. Caplin's electro-chemical baths. In two cases of hydrargyrosis, considerable quantities of mercury were discovered in the urine, and in the one of them, which ended fatally, also in the internal organs, especially in the liver. Urine which contains mercury does not necessarily contain albumen also; but in the two last-mentioned cases of hydrargyrosis there was albumen in the urine. The saliva which is collected during a mercurial treatmant does not contain any mercury. The quantity of mercury which is eliminated after the end of the treatment amounts to about one-fourth of that actually administered.—*Boston Med. Jour; Chicago Med. Jour.*

On the Deleterious Effect of Light on Potatoes.

The influence of light on vegetation is now regarded as a matter of the utmost importance, and although the precise mode of action may not be always understood, yet powerful effects of it are everywhere perceptible. In its absence leaves become blenched that would otherwise be green. Roots that are white underground become green when exposed. Turnips, white beneath, are green or perhaps red above, and many kinds of fruit, naturally pale, color under bright sunlight. By the action of light on leaves, the different secretions peculiar to plants are formed, such as gum, sugar, starch, oils, and even, in certain kinds of plants, deadly poisons. In some plants, too, the secretions due to the action of light are in certain portions harmless and nutritious, whilst in other parts of the same plant, through the same agency, highly deleterious principles are formed. The potato offers an example.

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Everybody knows that its tubers contain wholesome food, and it is also generally known that the stems, and especially the apples or seed vessels, are deleterious. But the treatment to which the potato is sometimes subjected is calculated to develope the poisonous quality in the tubers themselves, a change which can only take place during exposure to light. The poison found in the green parts of potatoes is called "solanine." This exists in several species of Solanum, and is found in considerable quantity in the shoots of potatoes. To obtain it the shoots are bruised and acted on by water acidulated with sulphuric acid. It is very poisonous. (Turner's "Elements of Chemistry.") Liebig says it is a powerful poison.

Although the stems of potatoes, according to the authorities just quoted, contain in notable quantity the noxious and easily-extracted principle, so dangerous in its concentrated form, yet the tubers grown underground and kept in the dark are floury and white when cooked, if the variety of potato is good, and quite free from acrid taste, which is one of the characteristics of solanine, and a sure indication of its presence. But the potato tuber is in reality a sort of stem; for it is furnished with buds, which, under favorable circumstances, push into shoots, as buds do on stems above ground. It is therefore, highly susceptible of the influence of light; for although both its skin and flesh are white, they soon become green by exposure; and the continued presence of light renders them as green as stems above ground. It is said that pigs have been killed by giving them potatoes greened to this extent. Such, of course, could not be sold for human food. For this purpose potatoes exposed to light must be housed or otherwise shaded before the green tinge is aparent, at least to the naked eye. But under the impression that the tubers keep better after having well basked in the sun, many cultivators are in the habit of turning them up, and spreading them out on the surface of the ground in bright sunny weather. This has the effect of greatly deteriorating their quality. Notwithstanding disease, really good potatoes can be found; but even slightly diseased ones, with the infected portions cut away, are infinitely better than quantities of others which, though they have a goodly appearance, have been greened. Instead of being white and floury, when cooked, they are yellow, and have a disagreeable acrid taste, which can scarcely be disguised, or, if it should, there is no proof that the deleterious effects of the acrid principle are counteracted. At all events, it would certainly be very desirable that such means should be adopted as would prevent that principle being generated, or, in other words, the tubers should be kept as much as possible in the dark instead of exposing them to light. The advantage of exposure as regards better keeping is doubtful, whereas the deterioration it occasions in the quality of the tubers as an article of food is certain. I have thus endeavored to draw attention to the subject, and it is the duty of every one who is aware of the deleterious effects of light on the potato to explain it to those who are not; for a knowledge of it, if acted upon, would prove beneficial to both rich and poor.—*The Gardener's Chronicle and Agricultural Gazette; Chemical News.*

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On the Preparation of a Natural Iodine Wine.

Originally administered in the natural state and dissolved in water by Coindet, iodine has been exhibited much more efficaciously through the intervention of iodide of potassium, as recommended by Dr. Lugol. This latter salt, indeed, has been almost completely substituted for it, and it is nearly exclusively in this form that internal treatment with iodine is effected.

Reason, however, points out that advantage is gained in giving medicaments in a state as nearly as possible like that in which they are found in nature; and, indeed, iodide of potassium, on account of the special action which it exerts on the mucous membranes of the eye, nose, and larynx, offers real inconveniences, and is impossible to be taken by some persons.

Under these circumstances, M. Debauque has opened a way which promises to be of service in showing how to render iodine soluable in tannin without the aid of iodide of potassium. From this has arisen M. Boinet's idea of administering iodine in liquors or syrups containing tannic acid, such as the wines of horse-raddish, quinine, gentian, walnut, or orange peel.

Arguing upon the good results effected by iodine contained in mineral waters, certain salts and plants, and burnt sponge, although these only contain very small quantities, remembering the results which he had already obtained by the incorporation of this metalloid into articles of food (iodised ailmentation); and as he has repeatedly said, to get farther from the laboratory and nearer to nature, M. Boinet has been induced to search for a preparation of this kind which would not have upon the tongue, throat, nor the stomach, the ill effects of ordinary iodine wines, which are usually prepared by the addition of tincture of iodine or iodine of potassium. This is what he does:—

At the time of vintage commence by picking the grapes so as only to have them ripe and fit to make good wine. They must not be picked off the bunch, on account of the tannin and salts contained by the stalk, which serve to preserve the wine and aid fermentation. They are placed in a large wooden tub capable of holding many barrels of wine. At the bottom is placed a thick layer of grapes, then above a layer of powdered seaweed, or even a layer of asher of these plants; then a fresh layer of grapes, then another layer of seaweed, and so on until the tub is full. The whole is then covered with a layer of chopped straw to keep the air away and favor fermentation. The important operation of working now commences, which lasts from fifteen to twenty days, according to the temperature. When the wine is fit to draw off—that is to say, when the fermentation is complete and the grape sugar changed into alcohol and carbonic acid, and it has dissolved and assimilated to itself the iodine contained in the weeds—it is placed in casks, keeping it as much as possible from contact with the air. To effect this, it must be drawn from the tub by means of a tap. The concluding operations are effected as with ordinary wine. This wine is, however, nothing more than a tincture of iodine, obtained like other tinctures, as that of aloes, opium, &c., by maceration and fermentation.

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This wine M. Boinet calls natural iodine wine. It keeps as well as ordinary wine, and has not, like syrups, the inconvenience of fermenting and decomposing. It contains so much iodine that it can even be mixed with other wine before being administered. The dose may be two or three spoonfuls unmixed per day for adults, and the same in coffee for children. M. Boinet usually administers it in the following manner:

In the wine usually drank at meals, or in any other beverage, a spoonful of this iodine wine is mixed at each meal. This wine has no disagreeable taste, and were invalids not told of it, they would not suspect that they were taking iodine or wine containing iodine.—*Bull. de Thérap.; Chemical News.*

On Actea Racemosa in Acute Rheumatism.

By Dr. Francis R. Mac Donald, Inverary.

[Dr. Mac Donald thinks that this medicine is superior to all others in this tiresome disease. He says:]

This remedy is the tincture of the *Actea racemosa*, an American plant, (natural order, *Ranunculaceæ*). It was first brought under my notice by an accomplished physician, Dr. Voris, of New Rochelle, near New York, who was living for some time here two years ago. Dr. Voris spoke so strongly of the good effects of the Actea in rheumatism, that I immediately procured a supply. I have used it since in all the cases that have come under my notice. I was at first disposed to ascribe its beneficial effects less to its own virtues than to that coincidence of favorable circumstances which has frequently been observed to attend the use of a new medicine. Its uniform success has induced me to alter this opinion; and I believe that a similar success will be found to attend its employment in the vast majority of cases of acute rheumatism.

I have employed the Actea with equal benefit in all the acute forms of rheumatism. In the subacute variety already alluded to, it acts with remarkable readiness. There are not a few persons to be met with, either of a favoring diathesis, or living in rainy districts, who, in consequence of such an exposure as would elsewhere or otherwise lead to no greater inconvenience than a slight cold, are suddenly seized with rheumatic pains. In these cases the Actea is alike expeditious and satisfactory. But is in the severest forms that its beneficial effects are best seen. Two well-developed cases came under my observation at the same time in last spring—one in a boy of nine, and the other in a man of forty. My supply of the Actea being exhausted, I was obliged to have recourse to the ancient treatment. In neither case did the disorder yield until the Actea had been given. The dose that I give varies from 25 to 40 drops, administered three times a day.—*Edinburgh Monthly Journal*, Oct. 1861; *Braithwaite's Retrospect*, part 44.

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Selections.

From *Notes of Cases in Surgery*, by Frederic C. Skey, Esq., F. R. S., Surgeon to St. Bartholomew's Hospital, published in the *London Lancet*, we select the following:

Lithotrity.—Some cases of lithotrity that have fallen under my observation are not without interest.

A man, aged sixty-eight, admitted in November last, had suffered from symptoms of stone for three years, during which he had passed about one hundred small stones, varying in size from that of a large shot to that of a pea. I broke the stone by eight several operations, each of which was unproductive of serious pain, and was followed by more or less relief. A small fragment only rmained in the bladder. After the last operation, which was not characterized by any remarkable feature, he had rigors, vesical pain, and low fever, and he died. The post-mortem examination revealed disease of long standing in both kidneys.

A boy, aged fifteen, admitted in October, had had symptoms of stone for two years. I crushed the calculus, which I presumed to be about the size of a large almond, twice only, at an interval of ten days. The boy left the hospital well.

A boy aged ten, admitted in January, had suffered from symptoms of stone for three years, during which he is reported to have had several attacks of retention of urine. His urethra being large and readily dilitable, I decided on treatment by lithotrity, and for which I had a small lithorite made. The stone was crushed twice without pain. On the following morning a fragment of stone became impacted in the urethra, and retention supervened. No alternative remained but lithotomy. As I was unable to pass in the bladder, I cut down on the urethra without it; and, having removed two large fragments of stone from the canal, I opened the bladder by the aid of a staff, and expelled the residue of the calculus by injection. More than half the stone had lodged in the urethra. The boy recovered. I freely confess the attempt to remove a stone from the bladder of a boy ten years of age by lithotrity to have been an error in judgment. The first fragment that escaped was of considerable size, and at once blocked up the canal. The rule I have consequently adopted for my own guidance is, never to operate with the lithotrite unless the urethra will admit a catheter of the size of No. 9 or 10. In this patient's case the lithotrite was No. 6, though the urethra was dilatable to about No. 7 or perhaps 8.

A man aged seventy-two, was admitted in May, from whom I had removed a stone by lithotrity, in 1851. The peculiarities of this case were connected with the physical qualities of the stone itself, from which arose a very protracted term of treatment. I operated on him no less than seventeen times. The calculus was of lithic acid composition; and I may remark, after some considerable experience of the operation of lithotrity, that the hardest calculi

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I had ever broken consisted of lithic acid, and not of oxalate of lime. I never once *crushed* this patient's stone; I only broke it into small fragments. No part of it was ever reduced to powder, as in other examples; but the entire stone, when finally collected, consisted of a multitude of fragments of nearly equal magnitude—about that of a large shot. The force of the screw required to break the stone continued very great up to nearly the last operation. On several occasions I came to apparently a dead-lock, and it required all the power at my command to screw the instrument home. Notwithstanding this force, at the termination of the case the blades of the lithotrite did not indicate more than a very slight strain in the workmanship, so perfect is the material of which these instruments are constructed.

There are, in my opinion, comparatively few cases of calculus in which the operation of lithotrity is not available. It may be most efficiently performed by any person possessed of ordinary skill and knowledge, and I earnestly join in its advocacy by the greatest of our modern surgeons.

Burns.—In reference to the subject of burns, I have always been an advocate for the stimulating principle of treatment first suggested by Dr. Kentish. That principle, to my observation apparently so sound, has been repudiated of late years by many eminent surgeons. The thoroughly negative action of Carron oil and lime water has been substituted for it, from which, I confess, I have never seen a corresponding benefit obtained. It is notorious that the intense pain caused by a drop of hot sealing-wax, or other similar agent, on the skin is much mitigated by the temporary application of great heat. The pain subsides in the course of a few moments by holding the affected part to the fire. The explanation is not perhaps very obvious, but the fact remains.

In July last five men were admitted into St. Bartholomew's Hospital, with severe burns on the face, head, chest and arms. One died immediately after his arrival. My house surgeon, Mr. Richard Smith, was at the time ill, and the immediate charge of the cases devolved on a colleague, who applied the oil and lime water to the arms and hands of each of the surviving men. At that moment Mr. Smith arrived, and completed the dressing by the application of a solution of nitrate of silver (ten or twelve grains to the ounce of water) to the face, neck, etc. I did not see these men until the following morning, when all four complained of severe burning pain in the arms and hands, but stated they were free from pain in the other affected parts. The stimulating solution above mentioned was applied to the upper extremities, and the relief at the expiration of about a quarter of an honr was complete. In two of the cases some pain returned on the third day, and relief was obtained by the same means. My directions are simply these: In the case of infants or young children, wash the affected surface, if not very extensive, with a solution of nitrate of silver, in strength six or eight grains to the ounce, and immediately cover up the part with a thick mass of cotton wool; in the case of an adult, from twelve to fifteen grains, unless the surface requiring the application be very large. Should pain return, the solution may be advantageously resorted to at an early stage of the treatment.

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THE ACTION OF POROUS BODIES IN INDUCING CHEMICAL COMBINATIONS.—M. B. Corenwinder showed some years ago that partial combination of sulphur and hydrogen may be effected by bringing the two bodies together in the presence of pumice-stone at a red heat. He has recently shown that the vapor of water may be also decomposed by sulphur, when some porous body at an elevated temperature is made to intervene. The experiment was conducted as follows: Some fragments of recently calcined pumice-stone were placed in the middle part of a glass or porcelain tube; one end of the tube was then filled with pieces of sulphur, a plugget of asbestos being placed between the cork and the sulphur. A tube, by which steam could be sent in, passed through the cork. The pumice-stone was then heated to redness, and the sulphur made to slowly volatilize. At the same time a current of steam was cautiously sent through. After a little time, sulphuretted hydrogen was produced in abundance. A still more decided result is obtained if pure calcined silica be substituted for the pumice-stone. The porous body is totally unacted upon in all cases.

The author directs the attention of geologists to these results; he thinks that they may explain the presence of sulphuretted hydrogen in certain volcanic emanations.—*London Pharm. Journ.; Amer. Journal of Pharmacy; Dental Cosmos.*

SOLIDIFIED CREOSOTE.—The great fluidity of creosote, frequently occasions much inconvenience when it is applied for caries of the teeth, and M. Stanislas Martin, to obviate this, recommends the combination of fifteen parts by weight of the creosote with ten of collodion. A gelatinous consistency is thus obtained, and this preparation has the advantage over simple creosote in forming a varnish which closes any orifices in the carious teeth against the access of air. "Creosote coagulates albumen, to which property is probably due its astringent and hæmostatic action. We believe that this new form of administration will allow of surgeons employing this body whenever they are in want of a stimulant agent combined with an isolating substance."—*Bull. de Therap.* and *Med. Times and Gaz.; Dental Cosmos.*

ON POISONING OF WATCHMAKERS BY COPPER.—Dr. Perron, of Besançon, has made some researches on the above subject, which are of interest. For several years the manufacture of watches in Besançon has greatly increased; there are now about 300 watch manufacturers, who employ about 3000 workmen. These workmen continually handle gold and copper, and statistical observation has proved that mortality by consumption is exceedingly great in this class. Out of 200 deaths in watchmakers, no less than 127 are caused by tuberculosis, and of the deaths by consumption in the whole population of Besançon, the watchmakers furnish 40 per cent., while the proportion of the number of watchmakers to that of the other population is not 5 per cent. Dr. Perron believes the following to be the causes of this gaeat mortality: The sitting posture which the men are obliged to retain for so many hours in the day, and the necessity of remaining in a cold room without exercise; the

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irritation of the lungs by the metal dust; and the paroxysms of fever, caused by the absorption of copper. The latter is thought to be the most important cause, by Dr. Perron, and he gives the following description of the symptoms of chronic poisoning by copper, as they occur among these men: The pulse is frequent, the skin hot, the throat dry; most of them complain of pain in the epigastrium, in the region of the kidneys, and in the head; many suffer from indigestion, enteritis, diarrhœa; and others have a feeling of constriction, and an acute pain in the throat. The teeth are in nearly all such cases colored more or less green, and almost bronzed. These symptoms are especially striking in the apprentices, who are almost exclusively occupied in filing copper. Many get accustomed to the injuries of their avocation, but others become so ill a few weeks after having first entered the shops, that they can no longer continue to work, and are compelled to embrace another calling.

In many cases the symptoms take a very severe form; acute colics, fever, burning thirst, vomiting, diarrhœa, or obstinate costiveness which lasts from twenty-four to thirty-six hours, are observed. The nutrition is also impaired, the muscles are badly developed, the complexion haggard, the look miserable. The continual absorptiom of small doses of copper, and its local and direct action, the frequent repetition of toxic and febrile symptoms, and the cachexia at last produced by it, are the causes of the prevalence of consumption among these men. Dr. Perron proposes as a prophylactic measure, that emaciated persons with tuberculous diathesis, should not be allowed to continue this calling, and to recommend as much exercise as is possible, abundant and succulent food, ventilation of the workshops, great cleanliness, baths, the use of aperients and diaphoretics, and the wearing of moustaches.—*Med. Times and Gaz.; Dental Cosmos.*

Death of the Inventor of the Stomach-Pump.—We find in the *Medical Times and Gazette* an obituary notice of Dr. Scott, formerly of London, who, with one Jukes, assisted by an ingenious gardener named John Reed, in the year 1822, inspired by the death of the Primate of Ireland, (as was supposed from laudanum,) invented the stomach-pump. His health failing, and thus compelling him to give up his lucrative practice, by the advice of his friends he opened an establishment for the sale of mechanical contrivances for medical and surgical purposes, which for a while promised immense success, but finally fell through. At the time of his death, he was resident physician at Woodhall Spa. The simplest contrivance having for its object the mechanical evacuation of the stomach, is that described to his class by the late Prof J. K. Mitchell, of Jefferson College, Philadelphia. It consisted of two elastic tubes, which are sucessively passed down the œsophagus to the stomach, both being allowed to remain. A constant stream of water is then poured into the longer tube, which, as soon as it has filled the organ, naturally finds its way out of the shorter. The stomach is thus most effectually washed out, and the process can be continued as long as is considered expedient without hazard to the patient. While, therefore, we appreciate the talents of honest John Reed, the gardener, in contriving a "patent pump to be used for medical purposes," we

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are inclined to think that had Dr. Scott been left to himself with his "simple tube and india-rubber bottle," he would have made a better instrument of it. —*American Medical Monthly.*

GOING TO THE ROOT OF THE MATTER.—Prof. Carnochan has recently removed about two and a half inches of the *second branch* of the *fifth pair*, measureing directly from its point of emergence from the *foramen rotundum*. The disease was *tic douloureux*. The result of the opperation was its entire relief. The Professor's theory in these cases, to which he has been led by repeated failures to produce a cure by mere division of the nerve, is, that disease existing anywhere in its course will produce sensations of pain at its extremities, and that even though the connection between the extremities and the diseased root be cut off, the sensations are still referred to the periphery, just as the mutilated soldier still suffers from aching toes at the end of his cork leg. If then, the diseased portion of the branch be left, division or excision of a small portion of the intermediate conductor is of little or no use. The brain has been too well educated to refer the suffering to any point but the sentient loops.—*American Medical Monthly.*

MEDICINAL TREATMENT OF GOUT.—The combination which M. Trousseau conceives to be the most efficient is that of sulphate of quinine, colchicum, and digitalis, proposed by M. Becquerel in the following proportions:—Quinæ sulphatis, 22 grains; ext. semin. colchici, 8 grains; ext. digitalis, 4 grains. M. Divide in pilulas decem. Two or three of these pills should be exhibited in the course of the twent-four hours, for two, three, or four successive days. M. Trousseau has prescribed these pills himself and witnessed their exhibition by others, with sometimes wonderful success. He has found the excruciating pain of a genuine acute paroxysm yield in seven or eight hours, and the attack itself subside in two or three days. These are the pills the professor prescribes in the incipient stage of anomalous gout.—*Dublin Hoipital Gazette; Braithwaite's Retrospect.*

ON FLAT ULCERS OF THE RECTUM.—*By William Coulson, Esq., Surgeon to St. Mary's Hospital.*—Ulcers and fissures of the rectum are amongst the most painful of the minor affections with which surgery is concerned. Where, however, any dfficulty exists in such cases, it usually arises in the diagnosis rather than in the treatment. Commonly, when the seat of fissure is discovered, the division of the fibres of the sphincter by the knife offers a ready means of cure. In cases of flat ulcer, however, the same result may be obtained by milder means, as in a case treated this year by Mr. Coulson at St. Mary's Hospital. The paitient was a man aged 26 years. He had been the subject of piles for some years, which he attributed to an early habit of taking strong purgative medicines. Three weeks before admission he had felt a violent throbbing in and after action of the bowels; this was followed by the discharge of about an ounce of blood and continued tenesmus. These symptoms were renewed at each action of the bowels, until admission, the pain being severe, and last-

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ing some hours. On examination, a somewhat deep and irregular ulcer was found by Dr. Coulson to exist in the mucous membrane within the sphincter. It was ordered that the bowels should be regulated and maintained in a condition of laxity by determinate doses of castor oil, that careful precautions for cleanliness should be observed, and that an ointment should be applied composed of a drachm of the nitric oxide of mercury to an ounce of lard. Under this simple treatment the patient made a rapid recovery, and was discharged, cured, at the end of a fortnight.—*Lancet; Braithwaite's Retrospect.*

Gonorrhœa.—*By Dr. T. K. Chambers, St. Mary's Hospital.*—Gonorrhœa is naturally, in both male and female, a most mild disease, with power to get well in about a fortnight by the simplest treatment, if only it is not made severe by the folly of the patient or his medical attendant. I consider all primary heroic treatment of urethral discharges a most unjustifiable interference with nature.—*Lancet; Ibid.*

Chlorate of Potash in Gonorrhœa.—Dr. Irving, United States Army, stationed at Fort Buchanan, says:

"It may not be amiss to place on record my testimony in favour of the use of chlorate of potash as a therapeutic agent which I have constantly used during the last two years in the treatment of gonorrhœa, both in my public and private practice, with the most gratifying results. I have found it to be such an admirable remedy that I seldom resort to any other in the treatment of urethral inflammation. My method of using it is as follows:—One drachm of the salt dissolved in eight ounces of water, of which an injection is given every hour for twelve hours, at the end of which the discharge is become changed and diminished, allowing the remedy to be grdually discontinued until the second or third day, when the disease will be generally found to have ceased. So efficacious has this remedy proved in my practice, that I seldom deem it necessary to give any other medicine, save a Seidlitz draught or a dose of Epsom salts."—*Medical and Surgical Reporter, and Glasgow Medical Journal; Ibid.*

Black Eye.—A writer in the Medical Times and Gazette says:—"A correspondent" asks the communication of an effective remedy for ecchymosis of the eye in a lady patient who had met with an accident. One which I have used for a great many years, never disappointing me, usually getting rid of the blackness in a few hours, is the root of the "Convallaria," "Solomons Seal." It should be washed, the dark-colored cuticle carefully cut off, then scraped like horse-radish, applied directly to the eye like a poultice, cold. A tingling sensation is the consequence; when this sensation ceases another fresh application should be made, and repeated until the whole ecchymosis is absorbed. I have often found it sufficient to apply the scrapad root at bedtime to the closed eye, when the blackness has disappeared by the morning. The convallaria is readily found, and is equally effectual at this season of the year.—*Dublin Hospital Gazette; Ibid.*

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[The following selections are from the Synopsis of *Braithwaite's Retrospect*, part forty-fourth. 1862.]

Acute Rheumatism.—In the treatment of acute rheumatism by means of large doses of alkalies, care must be taken that the bowels be well opened. If this is not the case, large quantities of alkali are retained in the system, and sometimes produce unpleasant effects.—*Prof. Reid.* p. 26.

Intermittent Fever.—You may often succeed as well, and even better, by giving arsenious acid in these cases than by the use of quinine. Give it as follows: Arsenite of potash, and compound tincture of cardamons, of each half a drachm; gum mucilage, three drachms; camphor mixture or water half an-ounce; mix. To be given every second hour for four or five times, the last dose to anticipate the expected paroxysm at least two hours. Even to a baby nine months old twenty minims of the liq. potassæ arsenitis may be given in ten hours, repeating the dose next day if necessary.—*Mr. J. Turner*, p. 25.

Malarious Fever.—Mix a purgative with quinine in the treatment of these cases, as follows: Resin of jalap, calomel, of each eight grains; quinine and rhubarb of each four grains; mix well together and make into pills. Dose, from ten to twenty grains. This medicine brings away a great quantity of black bile almost like blood. Sometimes you have to give a desert spoonful of epsom salts, when the above does not operate sufficiently. Quinine must next be given till the ears ring. The above doses are for strong adults.—*Dr. Livingstone*, p. 17.

Scarlet Fever.—Use the sesquicarbonate of ammonia as a gargle, as follows: Sesquicarbonate of ammonia, two drams; water, six ounces. Gargle the throat with this every four hours. Also give it internally in five or ten grain doses, according to age, three times a day.—*Dr. J. McNab*, p. 24.

Apoplexy.—The first effect of an apoplectic seizure is a violent shock to the nervous system. The skin becomes damp and cold and pale, the pulse and heart beat quickly and irregularly. If the patient be bled at this time fatal syncope might ensue, but after a time the heart recovers its power; if this take place we must bleed to prevent a return of the cerebral hemorrhage. In some forms of apoplexy these symptoms do not occur—as in that form depending on destructive softening of the cerebral substance. In such a case bleeding would aggravate the symptoms materially. But in all cases we may safely be guided by the pulse; if it be sharp and hard at the wrist, it will be sharp and hard in the brain.—*Dr. T. K. Chambers*, p. 41.

Varicose Veins.—By applying repeated blisters over varicose veins of the leg, you cause deposition of fibrine in the surrounding areolar structures and partial obliteration of the enlarged vein. The vein of course ceases to be varicose, and any ulcers present heal.—*Mr. Ure*, p. 29.

Hooping Cough.—The common clover hay (*Trifolium in fœno*) given as an infusion, ʒ ij. to Oj., or as a syrup, has a wonderful effect in relieving hoop-

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ing cough. The remedy is purely empirical, but it nevertheless cures most cases in a few days.—*Mr. M. Foster*, p. 49.

PHTHISIS.—*Chlorate of Potash and Sugar.*—For some years the author's practice has been to combine the administration of from one to three or four ounces of the chlorate per week, with the use of three or four pounds of sugar during the same period. If the patient has a dislike for sweets, he substitutes sugar of milk. Some of his cases, from a state of debility and emaciation have grown fat and strong.—*Dr. J. Turle*, p. 48

SPASMODIC ASTHMA.—It is a common practice in China, for asthmatics to smoke arsenic, and with the greatest relief to the disease. A very interesting case is related in which a French lady did the same in consequence of hearing the above. She commenced with a quarter of a grain, swallowing the smoke. From being in a state of constant breathlessness and suffering, unable to lie down or make the slightest exertion, she is now able to go about like other persons, and is rarely threatened with an attack oftener than once in three or four months, and that is at once checked by smoking arsenic with a very small quantity of belladonna or stramonium in the dose I have mentioned. She now uses, instead of a cigarrette, a small red pipe about five inches long.—*Dr. F. G. Julius*, p. 50.

DIARRHŒA.—Give the following: Compound infusion of gentian, eight ozs.; tincture of opium, a drachm to a drachm and a half; nitric acid, twenty minims; one ounce to be taken after every loose stool.—*Dr. P. J. Haynes*, p. 59.

DIPHTHERIA.—The best application to the throat which I know of, is Beaufoy's solution of chlorinated soda. A full-bodied camel's hair-brush is the best instrument for applying it, and to insure its full efficacy the throat should be thoroughly mopped with it as many as three or four times a day. The general treatment I adopt is a supporting diet and a pretty liberal use of alcoholic liquors. The next favorite medicine in such cases is the tincture of sesquichloride of iron in considerable doses.—*Dr. W. Budd*, p. 56.

DYSENTERY.—*Tropical.*—The treatment now usually adopted in the Military hospitals in India is the following. On admission a sinapism is applied to the epigastrium, and thirty minims of tincture of opium are given, for the purpose of rendering the stomach more tolerant of the remedy. An hour afterwards 3j.,—3 iss. of ipecacuanha is given in powder; it is better to give it about a half an hour after the tr. opii., but by waiting for a whole hour the medicine is retained longer and produces a more powerful effect. As may be supposed, considerable nausea is the result, but vomiting does not generally come on until at least an hour afterwards, sometimes two hours. During this nausea copious perspiration is produced over the whole body; the pulse becomes full and soft, and less frequent; the countenance loses the expression indicative of suffering, so marked in dysentery; tenesmus and abdominal pain immediately cease, and the patient has no more stools for twelve and sometimes twenty-four hours.—*Dr. R. W. Cunningham*, p. 57.

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DISLOCATION OF THE SHOULDER.—To reduce this dislocation the shoulder should be steadied firmly by two stout rollers, one passing over the clavicle and under the chair on which the patient is sat, the other round the chest and under the axilla of the injured side, the ends being secured firmly to the wall or some unyielding substance. The extending force should be applied from the wrist of the injured side; the tendon of the biceps being thus rendered tense, assists in restoring the bone to its place; moreover a much longer leverage is thus obtained. The operator must place his foot on the edge of the chair, and use his knee for the fulcrum.—*Dr. N. R. Smith*, p. 82.

RENAL DROPSY.—*Succeeding Scarlet Fever.*—When the urine is albuminous after scarlet fever, and the limbs dropsical, give the following draught to a child six years old: Benzoate of ammonia, five grains; spirit of nitrous ether, fifteen minims; syrup of tolu, one drachm; camphor mixture, one ounce; to be taken three times a day, and an occasional purge of the compound jalap powder.—*Dr. J. Trylor*, p. 24.

SCABIES.—Itch may be cured most rapidly by benzine. Evey part of the body must be well sponged with it; one or two applications will be sufficient. —*Mr. J. J. Godfrey*, p. 157.

UNUNITED FRACTURE.—This was the case of a young man, twenty-four years of age, who, five months ago, met with the accident of an oblique fracture of both the left tibi and fibula, the former at the middle third, the latter, as is often the case in fractures of both these bones, a little above that of the tibia. The tibia is still ununited, and the upper fragment is quite sharp. The fracture was oblique, downward and outward. In treating fractures, the great aim should be to restore the bones to their natural position, to place them in exact apposition, and to retain them in their place. If not done, imperfect union or entire want of it will be the result. The most accurately the bones are apposed, and the more entirely they are kept at rest by means of apparatus for extension and counter-extension, the more speedy and perfect will be the cure.

Among the causes which may occasion want of union in factures, may be mentioned the long-continued use of cold applications; the interposition of a clot of blood between the ends of the bones operating as a foreign body, or a portion of muscle, aponeurosis, spiculæ of bone, or a bullet; constitutional debility, profuse discharges, syphilitic taint, cancerous or tubercular diathesis, any one of these may occasion the non-union of fractures. In ordinary cases, fractures should become firmly united in five or six weeks. In this case the union which has taken place is fibrous.

The remedies for non-union of fractures are various. When depending upon constitutional or specific taint, the appropriate remedies for such coudition should be used; if upon anæmia, good diet, tonics, as quinine and iron, free ventilation, friction of skin, etc.; if from inacurate apposition, the proper adjustment of mechanical apparatus should be made, that the bones may be kept *in situ*. Should, however, none of these means succeed, the ends of the bones

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may be rubbed togather to produce inflammation and the exudation of lymph, the necessary prerequisites for the formation of bony union ; or pressure may be applied, the part painted with iodine solution, a blister applied, or, instead of this, a perforotor may be introduced to break up the fibrous tissue—the object of each method proposed being to excite inflammatory action in the parts —or the opperation of Dr. Physick may be employed in the introduction of a seton between the ends of the bone. In some instances this operation has been entirely sucessful, in a few instances unavailing and fatal. Or that of Dieffenbach, of Berlin, which consists in puncturing the skin and inserting ivory pegs between the ends of the bone, an opperation which is exceedingly simple and effectual. As a last alternative resection may be perfomed. In this case I propose to perform the operation of Diffenbach, inserting ivory pegs into the parts.—*Medical and Surgical Reporter.*

New Rhinoplastic Operation.—In the *San Francisco Medical Press* for July, Professor E. S. Cooper describes a new rhinoplastic operation. He says:

"We have had several cases recently, in which we practiced, with entire success, the method of introducing thin arched plates of virgin silver into the soft tissues, to hold them up when the bones of the nose had been lost. Thus far, they bid fair to succeed admirably, as there is every prospect that these plates will become encysted, in most cases, though time enough has not been given to test the method in this respect. There is one advantage this plan has over that of transplantation, viz., that it entails no additional deformity, even should it fail entirely in relieving the one for which it is tried, and we believe that, in all cases, it may be rendered bneficial, where bone structure alone has been lost. We have a case under treatment in which a considerable part of the ossa nasi, the vomer, and a fragment of the superior maxilla were lost—so much so, that the major part of the tissues representing the nose rested entirely below the surounding surface. A more disagreeable deformity of that organ could not possibly occur."

In this case the integuments were raised and dissected each way for nearly two inches, and "two arched plates of silver, shaped like the ossa nasi, were introduced and the integuments brought over them, so that the nose at once assumed the natural shape of one pretty well formed, which it retains still, six weeks after the operation."—*Ibid.*

Podophyllin in Secondary Syphilis and Gonorrhœa.—Dr. Brown, of Hampton, N. J., communicates verbally the result of the adminstration of this remedy in a case of secondary syphilis, of some weeks standing, occurring in his practice.

The case had been under treatment for some length of time. When he first saw the patient he had chancre, and the glans penis was bathed in pus. He had also the peculiar copper-colored eruption upon the whole body, and his hair was falling off. The doctor prescribed the podophyllin in half-grain doses, combined with carbonate of soda, to prevent nausea, and ordered a local application of precipitated chalk, calomel, and nutgalls in equal parts, reduced to an

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impalpable powder. No other treatment was used, and in two weeks time the man was entirely cured.

Soon after, a case of gonorrhœa (a second attack) presented itself, and he resolved to test the podophyllin without the aid of any other remedy. He accordingly gave the remedy as in the previous case, and in six days the cure was complete. These two cases are not of course sufficient to establish the fact that podophllin has or has not any certain power as a remedy in syphilitic affections, but taken in connection with the fact that English physicians are testing its virtues as a substitute for mercury, renders it a subject of sufficient interest to direct the attention of the profession to a fair trial of its properties in those diseases.—*Medical and Surgical Reporter.*

Tight Lacing.—We had supposed this most silly and destructive practice was entirely abandoned. But it is not. The wasp waist, the most complete caricature of all beauty or comeliness, is yet occasionally seen, but it is not so common as in former days. An instance of its direful effects we find in a late journal, and we transfer it to our columns as a sad warning to those who still persist in the suicidal practice:

"At the Hôtel-Dieu, the great hospital at Paris, a young girl of eighteen lately prsented herself to M. Breschet, for his advice. On the right side of her throat she had a tumor of variable size, but never bigger than one's fiist. It reached from the collar-bone as high as the thyroid cartilag (called in common language Adam's apple); when pressed downward it wholly disappears, but returns as soon as the pressure is removed; it is indolent, soft, and elastic. It is observed to be largest when the chest is tightly laced in corsets. In short, by placing the ear on it, the murmer of respiration can be heard in the tumor, which proves that a protrusion of the lungs has taken place; or, in other words, that this poor girl has been laced so tightly that her lungs, having no longer sufficient space in their natural situation, are squeezed out of it, and are forcing their way up along her neck."—*Ibid.*

Flying Machine.—A Mr. Edwards says in the *Scientific American*, that he has invented a flying machine which will attain a speed of five miles a minute. In a small machine, which he has already made and practiced with, the propelling force is a powerful steel spring, which with the proper geer attached, sustained the machine for about two and a quarter minutes. The apparatus weighed seventy-seven pounds, and on this was placed a weight of sixty-two pounds. The machine was fastened to a post, around which it revolved at a distance of thirty feet. It flew at the rate of one and a half miles per minute. The inventor feels sure that he has solved the problem of flying like birds through the air.—*Ibid.*

The Cholera in British India.—Cholera is still prevailing with great fatality among the British troops. The men are represented as disheartened and prostrated. The commander-in-chief has directed to officers to keep the soldiers amused, and ordered the bands to play for them.—*Ibid.*

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Pharmacy.

ON TINCTURA FERRI CHLORIDI.

Read at the Pharmaceutical Meeting of the Philadelphia College of Pharmacy, held Dec. 3d, 1861.

By W. H. Pile, M. D., of Philadelphia.

Every practical druggist must be aware of the uncertainty and perplexity attending the preparing of muriated tincture of iron, the more annoying as this arises not from any want of skill on his part. In fact, it is almost impossible to predict the result of his labors, and the conscientious druggist has often the mortification of finding his best endeavors unavailing in obtaining a satisfactory preparation, and his time and materials together thrown away. Numerous methods have been suggested and devised to overcome these difficulties, as may be seen by glancing back over the various Pharmaceutical Journals of our own and foreign countries, some of these no doubt would yield good results, yet in general they are not practical enough for our Pharmaceutists, requiring apparatus which the generality of druggists would rather dispense with.

The object of this paper is to suggest a *modus operandi*, by which a uniform preparation may be secured, independent of those variations of materials, which are unfortunately so often met with.

These variations are with respect to the muriatic acid, it being either too strong, or which is more usually the case, deficient in that particular.

As regards the precipitated carbonate of iron a greater difficulty exists, even when pure; that is, when containing no adulteration. The solubility in acid, of different samples, is exceedingly various, some specimens being almost entirely insoluble, while in the greater number, the digestion and heating calls for the greatest exercise of patience.

This difference of solubility appears to arise from some peculiar state of aggregation, and likewise, according to Gmelin, from its state of hydration or combination with water.

These varying conditions are no doubt caused by precipitating, washing and drying at different temperatures, or a too prolonged exposure to the air.

I have never yet met with a sample, however pure, that would meet the test of ignition, by which 98 grs. of pure hydrated sesquioxide of iron should lose 18 grs.; and provided it contained protocarbonate of iron, the loss would be so much the greater, as every 58 grs. of this latter substance would determine a loss of 18 grs. additional.

Perhaps it would be well, in order to a better understanding of the whole subject, to look at the officinal formula of our Pharmacopœia, and by means of the necessary tables calculate the relative quantities of acid and iron in the solution.

The formula is as follows:

Take of Subcarb. Iron.....Half a pound.
Muriatic Acid, (sp. gr. 1·76).....One pint.

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With directions to digest with heat until dissolved.

Now a pint of water weighs 7291 grs.; a pint of acid will therefore weigh (7291 + 1·16) 8457 grs. According to Ure's tables, muriatic acid, sp. gr., 1·16, contains 31·3 per ct. of chlorine. The pint will consequently contain (8457 + 31·3) 2647 grs. of chlorine.

Sesquichloride of iron, Fe_2Cl_3 has for its composition 56 grs. of iron to 106·26 grs. chlorine, and by proportion the 2647 grs. chlorine require 1398 grs. iron to combine with it.

Again, although there appears to be an uncertainty as to the precise composition of subcarb. of iron, it is generally regarded as a hydrated sesquioxide of iron, $Fe_2O_3 + 2HO$, containing a small but variable amount of carb. of protoxide. The equivalent for the hydrated oxide is 98, or when calcined 80. The equivalent of iron in these two forms would be the same, or 56. If the preparation of iron is the hydrated, by means of this proportion, as 56 iron: 98 hyd. sesquiox. : : 1398 iron, we obtain 2446 grs. of hyd. sesquiox. iron as requisite to saturate 1 pint of muriatic acid.

If the iron were anhydrous, the relative amount would be $\frac{8}{7}$ as much, or 1997 grs. In either case the quantity is considerably less than that given in the formula, namely 2880 grs. Another remark should be made, as still further increasing the disparity between the calculated and given proportions, and that is the considerable escape and loss of muriatic vapors, during the oft prolonged heating and digestion.

This gas is given off freely, even at moderate temperatures, and more so as the heat is raised, and the watery solution does not become permanent until nearly half of the gas has escaped. Now the quantity of iron dissolved decreases with the loss of acid, and as this depends on the solubility of the iron preparation, some requiring a much more prolonged digestion than others, we have consequently every reason to fear, that this valuable medicinial agent, will be found to vary widely in its therapeutic effects, as well as in its chemical relations.

In the formula of our Pharmacopœia, there is no provision made to compensate for this variation of strength, and even if half the acid should have evaporated, we are still required to add three pints of alcohol to the remainder.

I have already shown that the quantity of acid in the formula, one pint, would require for its saturation 2446 grains of hydrated ox. iron, provided there was no loss by evaporation and escape of gas. On this latter supposition, the whole amount of the finished tincture would measure 4 pints or 64 fluid ounces, and this would give 38 grains* in each fluid ounce. The iron is therefore in excess 434 grs., but as it is not an expensive preparation, it might be safely used to insure against accidental impurities, and also to thoroughly saturate the acid.

A much more important and practical consideration remains to be noticed,

* According to Dr. Squibb's observation there is a contraction in volume when the alcohol is mixed with the solution of iron, of about 2 per cent., which would slightly increase the calculated strength per oz.

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namely, how to provide against the loss of acid, or to make a proper compensation for it.

The remedy suggested will fortunately be found useful in a variety of cases, several of which have occurred in my own experience. It is briefly this: After digesting the subcarb. of iron and acid together, until the acid has dissolved all it is capable of, allow it to settle, and pour off the clear solution, or filter if preferred; then evaporate the solution, with a gentle heat until it commences to crystallize upon cooling; now add water until the specific gravity becomes 1·44, when cool. If now found to be turbid from a slight deposit of sesquioxide of iron, add a few drops of muriatic acid, and warm gently till clear; when finished the specific gravity should be 1·44 at 60° Fahr. and it will then yield per fluid ounce, 130·6 grs. sesquioxide of iron by precipitating with ammonia and igniting.

The solution is the "Liquor Ferri Sesqui Chloridi," one fluid ounce of which, when mixed with three fluid ounces of alcohol, will form the Tinct. Ferri Chloridi always of uniform strength, and containing 22·8 grains of iron per fluid ounce. The Dispensatory states, that in the present formula, no excess of acid exists, and, provided the digestion is continued long enough, no excess can exist, as I have already shown. The neutral solution, however, when diluted with alcohol and exposed to the action of light and air, is liable to absorb oxygen and deposit iron. This, perhaps, could be avoided by adding a definite quantity of muriatic acid to the solution.*

I have stated that cases occur, in which the above mentioned method of prepring a normal solution of iron can scarcely be dispensed with without loss.

I allude now to those accidental mishaps which occasionally are met with, even in the best regulated stores; such as the tilting over of the evaporating dish, and consequent loss of a portion of the acid, or the solution being forgotten until nearly dry, &c.; such events occurring, the loss of the residue must follow, if it were not for the remedy still available. In these and similar cases, pursue the same method, pour off and evaporate till the solution commences to crystallize, and then make up to a specific gravity of 1.44 by the addition of water.

In this proceeding, the employment of an accurate hydrometer will facilitate the necessary trials very much, or, still better, the 1000 grain bottle. These instruments are so indispensable, that every druggist should be supplied with them. In situations, however, where they cannot be obtained, an ordinary 2 oz. vial with a narrow neck may be employed with advantage for the same purpose.

In the Prussian Pharmacopœia there is an officinal preparation called *Liquor Ferri-Sesqui Chloridi*, made, however, in a different manner from the one already stated. Its advantages are, its permanent character and its being a pure sesquichloride. It is the solution which I prefer keeping for making the muriated tincture and other preparations.

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* A slight excess of acid appears further desirable, as tending to the formation of an ether, which is thought by many to increase the medicinal efficacy of the tincture.

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The formula is as follows, with some unimportant exceptions:

Take of Iron wire free from rust..... ℥ ii.
Muriatic acid.....f℥ viii. or q. s.
Water..... ℥ v.

Mix, and digest with a gentle heat, adding more acid, if necessary, until all the iron has disappeared. When the solution is complete add to it half as much more muriatic acid, previously diluted with 3 oz. of water, then raise the temperature to boiling or nearly so, and pour in by successive portions about 2 fluid ℥ of nitric acid, or until a drop tested with a dilute solution of red prussiate of iron, gives neither a green or blue precipitate.* Evaporate with a gentle heat, until upon cooling it begins to crystallize, add 6 oz. water, and if any iron oxide has separated, add enough muriatic acid to re-dissolve it with the aid of a gentle heat. Again evaporate to 6 fluid ℥, and finally add water to make the whole measure 10½ fluid ℥. The sp. gr. of this solution is 1·44, and is of the same strength as the solution previously spoken of, and can be made into the muriated tincture in the same manner.

As connected with this subject I may here remark, that a *Syrup of Perchloride of Iron*, which is occasionally prescribed, may be readily and extemporaneously made as follows:

℞ Liq. Ferri Sequichloridi.....f℥ i.
Syrupi.....f℥ x.

Misce.

This is identical with that prepared by Beral's formula, which is made by dissolving one part dry chloride of iron in 28 parts of syrup.—*Am. Jour. of Pharmacy.*

NEW FORMULÆ FROM FRENCH JOURNALS.

TRANSLATED EXPRESSLY FOR THE JOURNAL OF MATERIA MEDICA, BY PROF. H. DUSSAUCE.

POWDER FOR PYROSIS AND GASTRORRHŒA.

By Dr. Caffe.

℞ Calcined magnesia .....10 centigrammes.
Subnitrate of bismuth.....10 "
Ginger ..... 5 "
Extract of aconite ..... 1 "

Mix; for a single dose.—*Bull. Gen. de Therap.*

* The first part of this process is best effected in a flask; after the iron is dissolved, transfer the solution to an evaporating dish, which should not be more than one-fourth full, on account of the extrication of nitrous vapors towards the close, occasioning sometimes considerable frothing up of the materials.

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POMATUM FOR ULCERATED CHILBLAINS.

By M. Malhe.

℞ Cerate without water.....20 grammes.
Balsam of arceus ..... 4 "
" " the commandeur ..... 1 "
Extract of opium.....10 centigrammes.

[*Bull. Gen. de Therap.*

SOLIDIFIED CREOSOTE FOR USE IN SURGERY.

By M. Stanislas Martin.

℞ Creosote .....15 grammes.
Collodion.....10 "

Mix; use the same as common collodion.—*Idem.*

ADMINISTRATION OF CHLOROFORM INTERNALLY IN THE TREATMENT OF BILIARY CALCULUS.

By Dr. Bouchut.

℞ Chloroform .....1 gramme.
Alcohol .....8 "

Mix.

SYRUP.

Chloroform .....4 grammes.
Alcohol.....16 to 32 "
Syrup.....500 "

WINE.

Chloroform ..... 2 to 4 grammes.
Alcohol .....16 to 30 "
Red or white wine.....500 "

WATER.

Chloroform ..... 2 grammes.
Alcohol ..... 16 "
Water .....300 "

ELIXIR.

Chloroform ..... 2 grammes.
Alcohol ..... 64 "
Syrup.....225 "

INJECTIONS.

Chloroform ..... 2 grammes.
Alcohol ..... 16 "
Water .....250 "

[*Jour. de Chim. Med.*

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SYRUP OF CITRIC ACID.

By M. Mayet.

℞ Citric acid ..... 20 grammes.
Distilled water ..... 20 "
Syrup ..... 960 "

[*Journ. de Pharm.*

COMPOUND COD LIVER OIL.

By M. Fougera.

℞ Cod liver oil ..... 500 grammes.
Iodine ..... 40 centigrammes.
Bromine ..... 5 "
Phosphorus ..... 5 "

[*Ab. Med.*

CAMPHORATE OF QUINIA.

By M. Pavesi.

Dissolve camphoric acid in eight parts of water; add quinia little by little until saturation, by shaking constantly, takes place; add a little animal black, boil a few minutes, and filter; evaporate slowly until dry. This gives a white powder, which should be kept in a bottle well corked.—*Gaz. Med.*

PREPARATION OF DIFFERENT MEDICAL SYRUPS.

By M. Mayet.

Syrup of Hydrocyanic Acid:
Hydrocyanic acid, at 10° ..... 0 gram. 75 cent.
Syrup ..... 99 " 25 "

Every spoonful of 20 grammes contains 0.15 of acid at 10°, or 0.015 of anhydrous acid.

Syrup of Citrate of Iron:
Ammoniacal citrate of iron ..... 25 grammes.
Cannella water ..... 25 "
Syrup ..... 950 "

Syrup of Digitaline:
Pure digitaline ..... 0 gram. 05 cent.
Alcohol, at 85° C. ..... 5 "
Syrup ..... 995 "

Syrup of Chlorhydrate of Morphia:
Chlorhydrate of morphia ..... 0 gram. 05 cent.
Distilled water ..... 2 "
Syrup ..... 98 "

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Syrup of Iodide of Starch:

Soluble iodide of starch	25 grammes.
Water	335 "
Sugar	640 "

Syrup of Iodide of Iron:

Proto-iodide of iron	10 grammes.
Syrup of gum	790 "
Syrup of orange flowers	200 "

Iodotannic Syrup:

Iodine	10 grammes.
Tannin	60 "
Distilled water	1000 "

Dissolve and evaporate till the liquid weighs 200 grammes; then use of the

Concentrated solution	60 grammes.
Syrup	940 "

Syrup of Pepsin:

Pepsin	10 grammes.
Distilled water	30 "
Cherry syrup	170 "
Citric acid	2 "

Syrup of Perchloride of Iron:

Sublimated perchloride of iron	10 grammes.
Water	about 10 "
Syrup	980 "

Ipecacuanha Syrup:

Hydro-alcoholic extract of ipecac	10 grammes.
Syrup	990 "

Syrup of Lactuccarium:

Extract (alcoholic) of lactuccarium	2 grammes.
Crystallized sugar	660 "
Distilled water	600 "
Citric acid	2 "
Orange flower water	60 "

Syrup of Ergotine:

Ergotine	20 grammes.
Orange-flower water	100 "
Syrup of sugar	980 "

Dissolve the ergotine in the orange-flower water, and filter; add to this the syrup of sugar, after having evaporated it sufficintly to make of the whole 1000 grammes. Every spoonful contains 0.40 ergotine.—*Journ. de Pharm.*

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Editorial.

PODOPHYLLIN A REMEDY FOR SYPHILIS.—Dr. W. M. Fleming, of Rochester, N. Y., in a letter to the *Med. and Surg. Reporter*, gives an account of two cases of syphilis (a man and his wife) which he treated with podophyllin, and with entire success. As this is a new remedy for syphilitic affections, we make, for the benefit of our readers, the following extracts from Dr. Fleming's letter, which explain the cases in question, as well as the manner of their treatment:

"Mr. H., a native of Ireland, thirty-eight years of age, a blacksmith by trade, physically rather frail, especially for a man of his calling, very intemperate, and decidedly of a scrofulous diathesis, presented himself to me for advice the fore part of last October. He was then complaining of a very sore throat; swelling and tenderness of the submaxillary and inguinal glands; and a syphilitic eruption on the forehead, and hairy scalp. On examination, I found it to be a proper and severe case of secondary syphilis. It was making rapid progress in the throat, fauces, and nares; and his voice had the peculiar obstruction observable in acute angina. I at first applied a little mercurial ointment to the swollen glands, after which I used Lugol's solution, ditto, and prescribed an active purgative of calomel, as he was much constipated at the time, and gave him half a grain of podophyllin pills, one to be taken three times a day, also the Lugol's solution to be applied to the glands each night, until I again saw him.

"In five or six days he again called, somewhat improved; the throat better; the swelling and sensitiveness of the glands gradually lessening; and the eruption of the scalp disappearing, and drying up; with a loosening of scabby, bran-like patches, bringing a quantity of the hair with them. I now prescribed the podophyllin in half-grain doses, as before, to be taken, however, but twice a day, morning and night, in connection with small doses of iodide of potassa, and an occasional cathartic.

"About this time Mrs. H., his wife, came to me with a syphilitic bubo in the left groin. I adopted nearly the same course of treatment with her, with but the little variation necessary for the local treatment. The constitutional treatment was much the same, and with the same happy effect; she soon recovered.

"I saw him from time to time, with but little variation in the treatment, and he *rapidly recovered his health.* It is unnecessary to enter into the minute details of the case; suffice it to say that the podophyllin was the *staple* remedy used. The mercurials, so far as alterative results were concerned, were omitted. I saw him a short time since, enjoying, as he said, much better health than he had for some time previous to his illness."

In conclusion, Dr. F. says: "The active principle of the podophyllum peltatum, in small doses, undoubtedly acts as an alterative upon the system, and thus holds a specific relation to syphilis. It is decidedly safer than mercury

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as that is often used, and sometimes abused, and a few trials of the podophyllin will decide whether it be as efficacious."

On page 86 of this JOURNAL will be found the report of a case of secondary syphilis, and also one of gonorrhœa, treated successfully with this remedy, by Dr. Brown, of Hampton, N. J. These results, added to the experiments of Dr. Fleming, go far towards establishing the fact that podophyllin may be relied upon as a remedial agent in syphilitic affections, as a substitute for mercury; and, being thus favorably introduced to the profession, it should be so thoroughly tested as to leave not even a doubt upon the subject.

AMERICAN SURGERY ABROAD.—It gives us sincere pleasure to welcome back again to the active ranks of the profession our distinguished countryman, Dr. SIMS. He has had an opportunity, and a deserved one, of establishing in the eyes of scientific men in Europe his right to be considered the originator of a mode of operation which, even in the brief space of time since he first promulgated it, has been of immense benefit to suffering humanity, and of which the most persistent and unwarrantable efforts have been made to deprive him. His reception in Paris was most gratifying—not only was he called upon to operate before crowded classes in five of the largest hospitals of that city, but the most eminent surgeons confided their private patients to his professional skill. Fourteen cases, only four of which were not *unusually bad*, and fourteen cures! Such is the brief record of his labors in the Capital of the Medical World. We doubt if a similar score had ever been run up there before. "I was certainly very lucky," says the doctor, modestly. The one of us who has had the most experience will probably be best able to astimate the "luck" at its true value. The *Times*—not the English Blood and Thunder War-sheet, but its more peaceably-inclined namesake on this side the water—recently contained a letter from its special correspondent in Paris, which was almost entirely devoted to the consideration of Dr. Sims' visit and success. He mentions a case which possesses considerable interest in view of the question of the employment of anæsthetics, which has recently been brought so prominently before the profession in this city.

It was that of a young Countess, whose case had been pronounced hopeless by the leading surgeons, and who was placed under his care by Nélaton. A feature of the operation was her narrow escape by chloroform. The method adopted for the restoration was both novel and rational, and we are told that it is now generally followed in similar cases in that city. It consisted in "throwing the head of the patient down, and the feet in the air at an angle of about forty-five degrees. By this manœuvre, the brain and heart, with an increased quantity, receive an increased amount of stimulus, from the blood, and life is preserved until the volatile poison has spent its force, and is dissipated." The ordinary measures, friction, artificial respiration, and evulsion of the tongue, were also practiced.—*Amer. Med. Monthly.*

BOUND VOLUMES of the *Journal of Materia Medica* for 1859, 1860, and 1861, will be forwarded for $1 each, postage paid.

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THE

JOURNAL OF MATERIA MEDICA.

DEVOTED TO

Materia Medica, Pharmacy, Chemistry, &c.

Vol. IV.] MARCH, 1862. [No. 3.

Alteratives.

BY JOSEPH BATES, M. D.

Colchicum Autumnale.

This plant derives its name from Colchis, a city in Asia, where it abounds. Called also *cœum*, and *colchicum cormus*. Sexual System, *Hexandria Trigynia*. Its Natural Order, by Parr, is *Liliaceæ;* by Stille, *Colchicaceæ;* by Wood and Bache, *Melanthaceæ*. Parr says Colchicum abounds in some parts of Asia, though most authors unite in calling it a native of Europe.

Botanical Characteristics.—Stem very short; leaves lanceolate, shining, terminated towards the base in a sheath, color dark green, smooth, often over twelve inches in length, and an inch and a half broad (in some localities the leaves are not over five inches in length); flowers large, purple; calix with a very long tube, and a companulated limb; stamina inserted in the upper part of the tube; fruit an ovoid, elongate and trifid capsule, bearing three deep furrows, and containing seeds covered with arils. It is a perennial, bulbous plant, the leaves of which appear in spring, and the flowers in autumn. It blooms in September—flowers of a purplish, rosy color. The officinal parts of the plant are the bulb and seeds. Botanically speaking, the bulbs of Colchicum, as found in commerce, are not the roots; the roots are the fibers attached to the base of the bulbs. The flowers have not been adopted in the Pharmacopœias, though they possess similar vir-

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tues to the seeds and bulb. The bulb is ovoid, of the size of a walnut, compressed on one side, convex on the other, of a compact and whitish tissue, of a yellowish color, externally marked with uniform furrows, of a strong and unpleasant smell with an acrid and nauseous taste. Seeds small almost round, wrinkled, color brown, excessively tough, or hard; taste at first hardly perceptible, but afterwards, very acrid.

PELLETIER and CAVENTOU both say that Colchicum contains some veratria with gallic acid. This is doubtless an error, the active principle of Colchicum, *colchicia*, being entirely distinct from veratria, with which it has, by many, been confounded. Colchicia may be obtained in crystals, has the chemical relations of an alkaloid, has a bitter taste, and is soluble in water and vinegar, but more completely in alcohol and ether.

EDWARDS and VAVASSEUR, nearly forty years ago, when writing upon Colchicum, use the following language: "Its effects vary considerably according to the dose in which it is given. In small doses, it seems, from the observations of several English practitioners, to act rather as a sedative, than as an irritant; consequently, they often administer it in this manner, to soothe the excruciating pains produced by gout or acute rheumatic affections. In large doses, on the contrary, this substance proves exceedingly irritating, and produces copious alvine evacuations, frequently attended with colics, vomiting, and all the other symptoms of gastro-intestinal inflammation. Exhibited in moderate doses, Colchicum becomes an energetic purgative, and its action operates likewise upon the urinary organs, the activity of which it increases considerably; indeed, it has for this reason been ranked by several authors among the diuretic substances next to the squill, to which it is very nearly related as to its modus operandi. It is employed as a drastic in cases of hydrothorax, anasarca, violent gouty and rheumatic pains, etc. This very active substance, frequently exhibited in England, is very little used on the continent. However, Drs. CLOQUET and GODARD have lately called the attention of practitioners to this remedy, by the many advantages they have obtained from its administration in chronic rheumatism. These physicians have exhibited the tincture of this substance; and they have observed that the tincture prepared

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from the seeds of the plant is much more active than that from the bulbs, in the proportion of three to five."

There are few, if any, medical agents, yet known in the vegetable kingdom, of greater importance to the medical profession than Colchicum. No one article has been used for the purpose of encountering so great a variety of diseases. No one article possesses, perhaps, a greater variety of distinct properties, or operations, than the one under consideration.

As an alterative, all agree in admitting that it possesses such properties in a remarkable degree. It is also a valuable cathartic in many diseases. It is a sedative. It possesses emetic properties. It is one of the most valuable diuretics. Many claim for it narcotic properties.

Dr. TULLY says, on page 169 of his Materia Medica, that "it is not through its adenagic power that Colchicum autumnale is such a dangerous agent." He maintains that whatever danger arises from the use of Colchicum, depends upon its antiphlogistic power. He intimates, on page 867, that Colchicum has, also, erethistic properties.

SIR BENJAMIN BRODIE says: "Sometimes Colchicum produces yellow stools, showing that it stops the secretion of bile; and to counteract this tendency, you should add one or two grains of blue pill to each dose." (Lond. Med. Gaz., Oct. 27, 1838, p. 151.)

Dr. TULLY says, on page 1147: "What article of the materia medica is more exhausting than the Colchicum autumnale, when efficiently employed, while, at the same time, it is actively adenagic, hydragogue, cathartic, and emetic. Although its hydragogue catharsis and emesis may enhance its exhausting powers, yet its exhausting effects always precede its catharsis and emesis, showing clearly that it is a direct exhausting agent independent of its evacuant operation." He continues: "I have seen a number of deaths produced by this article, and in all of them, what I deemed a fatal amount of exhaustion always took place before the occurrence of the catharsis and emesis. The same has been true in all the reported cases of death from this article. With such powers, and a capability of producing such effects, I should not think that Colchicum autumnale could possibly fail of proving antiphlogistic, though I never had an opportunity to witness its employment in any entonic disease." He adds: "There are

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numerous other vegetable adenagics that appear to be directly exhausting to a considerable degree, but I believe none of them so much so as Colchicum autumnale. Their exhausting power is however sufficient to do much injury in many atonic cases, in which they are employed for their adenagic operation. I can not now think of any one of them, that is as likely to prove truly antiphlogistic in an entonic disease, as the species of Colchicum just treated of."

DIOSCORIDES was evidently acquainted with the medical propites of this plant to some extent. He describes it under the names of Colchicum, Ephemorum, and wild bulb, and mentions that it is found in Messenium and in the island of Colchos. He says that its poisonous effects are similar to those of mushrooms. He proposes milk as the best antidote. GALEN also alludes to its poisonous qualities. Dr. STILLE says, in his Materia Medica, page 696: "Of the Arabian physicians, Elgâfaki describes the plant and the peculiarities of its growth and flowering. Hobaisch, Masih, and Avicenna refer to its power of alleviating rheumatic and gouty pains, and to the advantages of associating it with cathartic medicines. The last-named author recommends poultices of the root in painful affections of the joints. Others attribute to it aphrodisiac virtues."

Notwithstanding this article obtained an early notoriety as a medicinal agent, it appears to have fallen into disuse, until 1718, when WEDEL proclaimed it as a prophylactic against the plague, but relative to this it obtained no permanent credit. STÖRCK advocated it as a remedy for dropsy, gout, and chronic catarrh, in 1763, and his views found numerous supporters, especially for the first-named disease.

Colchicum was not regarded as an anti-arthritic remedy, until between 1814 and 1820, when the writings of WANT, HOME, HADEN, WILLIAMS, COPLAND, and others, demonstrated its efficacy, and established it in the confidence of the medical profession.

TURNER used it with success, and showed, contrary to the views of SUTTON and others, that its remedial effects do not necessarily depend upon its cathartic properties. Mr. HADEN labored to prove that it might be used as a substitute for bleeding.

Dr. STILLE remarks, on page 699, as follows: "The nervous

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system is seldom disturbed by medicinal doses of Colchicum. In a large series of cases reported by Monneret, although the digestive functions were much deranged, those of the nervous system were unimpaired. Kuhn, however, observed headache and vertigo among the effects of the medicine. Sir Everard Home seems to have been the first to notice the property of Colchicum to diminish the frequency of the pulse (1816). Dr. A. T. Thompson also drew attention to this phenomenon, which is unquestionably one of the physiological effects of the medicine. In this country, it was early noticed by Dr. J. Y. Clark. It ceases as soon as the poisonous action begins. Dr. Maclagan took twenty minims of tincture of Colchicum on two different days, between the hours of six and eight in the evening, and found that by midnight his pulse had fallen to about 65."

Colchicum acts upon the digestive organs with more uniformity. When small doses have been used during several days in succession, or large ones have been taken, some heat is felt at the epigastrium, with eructations, and sometimes nausea. If repeated, the appetite fails, the tongue becomes coated, and colic, borborygmi, and diarrhœa supervene. If larger doses are administered, vomiting and purging ensue.

In 1828, CHELIUS noticed the influence of Colchicum upon the urine. He observed that during its use the uric acid in this secretion was nearly doubled. Drs. CHRISTISON and MACLAGAN afterwards observed a similar increase in the urea, and urate of ammonia, raising the specific gravity of the liquid to 1·034.

Dr. NETTA attributed to this article an action upon the uterus like that of ergot. Dr. CLUTTERBUCK held to the same opinion. Both authors base their opinions upon a very limited observation relative to this quality of its operation.

Dr. LAYCOCK observed that a tincture of Colchicum rubbed into the skin of the abdomen produced the characteristic signs of its operation, such as tenesmus, mucous stools, depressed pulse, etc.

Dr. STILLE remarks that "in poisonous doses, Colchicum gives rise to symptoms of a very violent description, which are apt to terminate in death."

The following is a summary of results from an analysis of ten cases which are reported in sufficient detail for our present purpose. The forms of the medicine were various, including the

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tincture, the seeds, the infusion of the root, and the leaves. The quantity of the alcoholic preparation always exceeded an ounce, and was generally between one and two ounces. The patients were all adults except two, who were boys of four and six years old.

Pain in the abdomen is discribed in about half the cases, but not as very severe in more than two; its character was usually griping. It was generally one of the first symptoms to appear, and occurred at various intervals from half to one hour after the poison had been taken. Sometimes it was spasmodic, and accompanied with cramps of the abdominal muscles. The epigastrium is said to have been slightly tender upon pressure in one case, and in two is expressly stated to have been indolent; in the rest this symptom is not mentioned, and must, therefore, be supposed to have been slight.

Vomiting was a prominent symptom in every case; it occurred among the earliest symptoms, and was the most persistent of them all; the fluids thrown up consisted of bile and mucus, sometimes tinged with blood; in one case, a substance like coffee grounds was rejected. Retching alternated with actual vomiting. In only two cases is the thirst said to have been great. Diarrhœa occurred in every case; the stools were generally frequent, liquid greenish, black, and fetid, or containing shreds and flakes as of coagulated mucous; tenesmus occurred in one or two cases, and in one, at least, the discharges became involuntary. The other symptoms furnished by the digestive organs were subordinate and not uniform. Thirst was by no means urgent, except in one case, in which there was burning of the mouth, and difficulty of swallowing. In another case, the taste was normal, and the tongue blue and cold. The quantity of urine was generally unaffected. In only two cases diuresis is mentioned, and in two suppression of urine.

Among symptoms affecting the nervous system "numbness of the hands and feet, with pricking as if they were asleep, painful flexure of the joints, and in all the bones, with difficulty of moving the head and tongue," are mentioned in one case only, which is reported by Dr. HENDERSON, of Edinburgh.

The most prominent symptoms in this division are spasms affecting the voluntary muscles of the legs and arms, the abdomen,

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the chest, and in one case, of the neck, throat, and fingers, also. Occasionally, towards the close, there were subsultus, or floccitation. In one case, in which two ounces of the seeds had been taken, the large size of the dose appears to have produced general loss of muscular power (FERIDAY).

In another case, that of a child four years old, and where also the dose was relatively excessive, there was no decided spasm, but only muscular pains, and the little patient lay with half shut eyes, breathing hurridly, protruding the tongue with difficulty, and evidently dying from sheer exhaustion. Muscular pains accompanied the cramps, and continued in the intervals between them, in several instances. Once there was pain in the knee, and once in the spine.

In a single case, that of a boy six years old (SCHILLING), there were exceptional phenomena, depending probably upon some cerebral lesion, from which the patient died at the end of forty-eight days; but no post-mortem examination was made. The symptoms alluded to were chiefly these: trembling, extreme sensibility, pains in both forearms, dilated pupils, convulsions, opisthotonos, and rolling of the head, deafness, swelling of the elbow and knee-joints of the left side, hemiplegia of the right, and convulsions of the left side, &c.

In all, or nearly all of the cases, the mind was clear throughout the illness; there was no tendency to sleep except from exhaustion; no illusions, nor any perversion of the senses. The usual mode of death was by exhaustion, but once it came in a convulsive attack. The surface of the body was uniformly in a state resembling that of collapse, with pinched and sunken features, purplish lips and cheeks, pale and sunken and moist integuments, often lived, particularly in dependent parts, dilated pupils, cloudiness of the cornea, and small, thready, feeble, and frequent pulse. Death probably resulted from paralysis of the heart. Dr. STILLE remarks that "the duration of the fatal symptoms seems not to have exceeded forty-eight hours in any case where the result depended directly upon the poison. The shortest period which it required to prove fatal was twenty-four hours.

The Officinal preparations of Colchicum are:—

1. Acetum Colchici (vinegar of Colchicum). This is made by macerating two ounces of bruised Colchicum root for seven days

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in two pints of diluted acetic acid, or by percolation. Dose from thirty drops to two fluid drams.

2. Extractum Colchici Aceticum, dose one to two grains.

3. Tinctura Colchici Seminis, dose from one half to two fluid drams.

4. Vinum Colchici Radicis, dose from ten minims to a fluid dram.

5. Vinum Colchici Seminis, dose half to one fluid dram.

USES.—*In Gout.*—Colchicum was used in this country, as a remedy for this disease, by Dr. DORSEY, who found the joints "were relieved by it as by the wand of a magician." He observed that it promoted sleep, and that it purged away dark fetid matter.

In England (1822), Dr. BARLOW advocated its use, but insisted upon premising depletion and purgation with calomel and antimony. He prescribed two drams of the tincture of the seeds at night, and, if necessary, a repetition of the dose the next morning, so as to purge briskly. If it failed to purge, a similar dose was given the following night, after which it was continued in smaller doses, in a saline mixture. Employed in this manner, he found that it purged, allayed the pain, and lowered the pulse. He undoubtedly intends, by the lowering of the pulse, a dimunition of its frequency. He regarded its sedative operation of more importance than its cathartic.

Dr. HOLLAND maintains that Colchicum may, with care, be made a preventive in this disease, as well as a curative agent.

Dr. CHRISTISON does not regard its purgative effects as at all important, except as furnishing an indication that the limit of the medicine has been reached, and that it is really acting upon the system.

Dr. GAIRDNER remarks "that Colchicum never more effectually relieves the patient than when it acts silently and peacefully, without producing any evacuation whatever, or in any way disturbing the patient's comfort and ease."

Mr. WELLS, also, insists that it is most efficient when it produces the least sensible effect upon the functions.

Dr. TODD says that, if employed in such doses as will produce only its chemical changes, it will, in strong constitutions, most

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favorably modify the gouty paroxysm, and certainly shorten its duration. If on the other hand, it produces any of its irritant effects, it is likely to do more harm than good. He lays down the following rules for the employment of the remedy which it is believed embody the soundest precepts upon the subject:—

"1. The use of Colchicum is most applicable to the sthenic form of gout which occurs in robust constitutions, and in the prime of life; but it is almost inadmissible in persons advanced in years, who have had several attacks, and in whom the malady would seem too deeply rooted to be influenced by the temporary administration of the remedy.

"2. Colchicum should never be given at the onset of a paroxysm, nor until the bowels have been duly acted upon by mild purgatives.

"3. The first doses of the medicine should be very small; they may be gradually increased.

"4. Colchicum should be always administered at first uncombined with any other medicine, until the practitioner has satisfied himself that it does not disagree with his patient.

"5. It should not be administered so as to excite nausea, vomiting, or purging. These effects should be regarded as indicative of the unfavorable operation of the medicine.

"6. Colchicum may be regarded as acting favorably when, under its use, the urine is increased in quantity, a more abundant bile discharged; when the fauces, though solid, are surrounded by mucus, and the skin secretes freely.

"7. The effects should be carefully watched, as, like digitalis and other medicines, it is apt to accumulate in the system."

Dr. STILLE remarks (on page 706): "It will thus be perceived that there is a very general conviction of the inutility, if not danger, of allowing Colchicum to produce its emetico-cathartic operation in the treatment of gout." He adds: "We have met with but one notable exception to this statement, that of Dr. Wigan, of Brighton, who, it must be added, has reference more porticularly to 'Rheumatic gout.' In this affection he pronounces Colchicum to be 'the most easily managed, the most universally applicable, the safest, and the most certain specific' in the Pharmacopœia. He employs the powdered cormus in doses of eight grains every hour, in some mild and agreeable fluid, until active vomit-

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ing, profuse purging, or abundant prespiration takes place. These effects are postponed as long as possible by giving the patient an occassional sip of some aromatic and stimulant drink, and generally until six or seven doses have been taken. His sickness then resembles sea-sickness, and like it, is very distressing, but when it has been endured for a few hours, the inflammation of the joints subsides, and they resume their natural size with miraculous rapidity. A sound sleep ensues, 'from which the patient awakes perfectly well.' Dr. W. affirms that he has never seen a relapse." Dr. STILLE says in conclusion: "It is possible that the administration of the medicine in divided doses may prevent the serious consequences otherwise to be apprehended from such heroic treatment."

Rheumatism.—LOCKER-BALBER reported that it cured the acute rheumatism surely and rapidly whenever it purged, but that it deranged the digestive organs temporarily.

ARMSTRONG says, in acute rheumatism "Colchicum certainly has given more speedy and decided relief than any other single remedy which I ever saw employed." In doing so, he adds, it did not act through the kidneys or skin, and but occassionally on the bowels, but it lessened the heart's action, the animal heat, and the pain.

Dr. A. T. THOMPSON'S account of Colchicum corroborates that of Dr. ARMSTRONG, with this addition, that Dr. A. T. T. only prescribed the medicine after calomel, tartar emetic, and opium.

SEYMOUR gave an equally favorable verdict, but similarly qualified.

CHAILLY held it to be successful only when it produced a cathartic operation. This also is the opinion of WATSON, who ascribes to Colchicum "an almost magical effect in quelling the synovial form of the discase," particularly when it produces its severer effects of vomiting and diarrhœa.

Dr. MACLAGAN thinks that the erratic articular form, that in which the internal organs are most apt to be effected, is the one in which Colchicum is pre-eminently useful.

Dr. FULLER agrees with Dr. WATSON that the synovial form is more amenable to this remeny than the fibrous, and that its benefits are dependent upon its evacuant, and especially its diuretic action.

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Dr. EISENMANN contends for the curative powers of Colchicum in all febrile and inflammatory affections produced by cold, which, according to him, constitutes them members of the group of rheumatic diseases. He recommends a mixture of six parts of wine of the seeds of Colchicum with two of tincture of opium, in the dose of fifteen or twenty drops two or three times a day. Relative to Dr. EISENMANN'S views, Dr. STILLE remarks: "The combination is a rational one, and deserves a more extended trial. In regard to the modus operandi of Colchicum in curing rheumatism and gout, there is but little division of opinion. Some few refer its action to a vital influence, in a great part at least."

Dr. TODD refers its effects, in part, to its operation on the nervous system.

Almost all authors of repute adopt the views originally proposed by CHELIUS, that it acts as an eliminant, or as a purifyer of the blood, to use a more homely but more intelligible phrase. CHELIUS observed that it increased the proportion of uric acid in the urine.

KUHN dwelt upon the value of the remedy in removing uric acid from the system in gout.

Dr. HOLLAND remarks that there was every reason to believe that Colchicum neutralizes or eliminates a gouty materies morbi from the system.

Many English practitioners recommend Colchicum as almost a specific in neuralgia. The author has used this remedy in the treatment of rheumatism, both, acute and chronic, also in neuralgia; and can say, from many years experience, that he finds it one of the best remedies in those diseases. He thinks that those diseases are sooner cured, when the remedy is given in such doses as to purge freely; more particularly, however, in rheumatic diseases. He has also used the remedy with marked success in some forms of cutaneous diseases, and also in scarlatina.

Several writers, among whom may be mentioned LEWINS and HADEN, speak of Colchicum favorably in the treatment of fevers.

Mr. TAIT conceived that he was very successful in treating scarlatina, of an inflammatory type, with this remedy.

Also, Mr. BENNETT, in a case of scarlatina marked by alternate delirium and coma, and scanty urine without any deposit, gave

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Colchicum together with acetate of potash and spirit of nitric ether. The cerebral symptoms disappeared, and a large quantity of urine rendered turbid by urate of ammonia was voided. Dr. STILLE very justly remarks that "the share of Colchicum in this result is open to question."

This agent was originally proposed by STÖRCK as a remedy in dropsy, and he claims to have used it very successfully. Others have been equally fortunate with this treatmeut.

MASON GOOD advocates the same treatment. CLARK, of Philadelphia, and ARAN, have reported cases of its success. In scarlatinous dropsy, Dr. MACLAGAN frequently found it of much service. He thinks that urea retained in the blood is the cause of coma in this complaint, and that Colchicum causes its discharge. The same writer proposes Colchicum in the advanced satges of Bright's disease, as a means of depurating the blood.

In 1834, Mr. COTTER proposed Colchicum for malignant cholera, and states that he used it successfully in eight cases.

Colchicum has been recommended in the treatment of tetanus, by Dr. W. G. SMITH, of Port-au-Prince.

Dr. ELLIOTSON cured a case of prurigo in the course of three weeks, in a man seventy years of age, by giving half a dram of the wine of Colchicum three times a day.

In gonorrhœa, and also in leucorrhœa, it is said to have been used with advantage by TICINUS, of Dresden, and also by Mr. RITTON.

Externally, frictions with the tincture of Colchicum have been recommended in gout and rheumatism by GUMPERT, by WANSBOROUGH, and by LAYCOCK. It would appear in some cases to have afforded very great relief.

For a more complete and satisfactory account of Colchicum, its history, its action on animals, and on man, its poisonous effects, its uses in diseases, &c., I would refer to the late work of Dr. STILLE, from which I have freely quoted.

In concluding my remarks upon this remedy, I shall instance some few notices, from various medical journals and authors, to prove that this agent has lately been used in this country and Europe in a variety of diseases with marked success; diseases not formerly thought amenable to Colchicum.

In the *Boston Medical and Surgical Journal*, Vol. 19, p. 232:

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"The remarkable power of this medicine in reducing irritability and inflammation of the internal organs, has induced some practitioners to extend its use to almost all inflammatory diseases;' and Dr. LEWINS, of Scotland, concludes, from the result of his trials, that 'we may more certainly cut short fever, or, at least, break its force, by the judicious administration of Colchicum, than by and other known means.'" Dr. TAIT'S views of this remedy in scarlatina may be found on the same page. He there speaks of it as one of the most effectual remedies.

In the same Journal, Vol. 33, p. 296, the writer says: "A remedy to which I wish to draw your attention is the wine of Colchicum (in scarlet fever). During an epidemic, one of our oldest and most distinguished practitioners, having a case of great danger, used Colchicum with such marked success, that my confidence began to rise. This gentleman stated further that his son, practising in a neighboring town, had been so peculiarly successful in an epidemic (of scarlatina), that he had acquired much reputation, his principle remedy being Colchicum. Since this period I have been in the constant use of it in severe cases, and think it has proved eminently serviceable." (This is found in ELLSWORTH'S prize essay on scarlet fever.)

In the same Journal, Vol. 28, p. 426, I find the following, taken from the London Lancet: "*Wine of Colchicum in Fevers.* By THOMAS EMBLING.—I would beg leave to call attention of the medical profession to the value of the vinum colchici in fevers generally. I have used it for a considerable time in scarlatina, measles, small-pox, influenza, and every other form of fever, when there has been the slightest manifestation of an inflammatory action existing. In one case of confluent small-pox in an adult, who had been vaccinated, the most marked benefit was derived from its administration. I have also found it singularly useful in checking the evening exacerbations of febrile diseases, and in abbreviating the duration of the disease. The only difficulty I have experienced has been its tendency to run off by the bowels; but, after trying a variety of adjuncts, I have proved that a minute quantity of the tinct. opii, modified by the addition of the quantity of vinum ipecacuanhæ, has always retained the Colchicum in the system, and, also, without at all increasing the febrile action by the presence of the opiate. Having for a lengthened period

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proved the advantage of the Colchicum in such cases, I have wholly relinquished the saline method of treatment in fevers, and can with the greatest confidence recommend its employment to my medical brethren."

In same Joufnal, Vol. 56, p. 79: "Dr. JOHN WARE alluded to the effect of Colchicum in certain abdominal affections. In one case, the patient, a stout, healthy man, had been troubled with a painful affection of the abdomen resembling colic, not unlike that form produced by lead, there being, however, no evidence that it was due to this poison. Various remedies were tried without avail. Colchicum was at last given in moderate doses, till a mild action of the bowels took place, this being continued for ten days. The effect of the medicine was to diminish the pain even before purgation came on, and the patient was entirely cured."

In another case, one of chronic painter's colic, in which, also, various remedies had been vainly resorted to, Colchicum affected a permanent cure.

In same Journal, Vol. 29, p. 419, may be found a notice of Dr. A. B. TODD'S new work on gout and rheumatism and his hints for the guidance of the practitioner in its employment. His hints I have briefly noticed in some of my former remarks.

In the same Journal, Vol. 35, p. 331, may be found some valuable remarks relative to the use of Colchicum as a diuretic, cathartic, and its action on the liver. The author is of the opinion that, when its diuretic effect is wanted, and that speedily, the acetum colchici is to be preferred. When its cholagogue and cathartic effects are more particularly desired, the extract, wine, or tincture is to be selected. Many persons of gouty or rheumatic habit or diathesis, but who have never had a fairly-formed attack of either disease, are subject to innumerable neuralgic affections, of every anomalous and perplexing character. Both the patient and practitioner are puzzled, and perhaps alarmed by them, until either a regular fit of gout, or some rheumatic symptoms, both attended with more or less renal derangement, explain at once, and relieve the preceding obscure and troublesome lesions of sensibility and secretion. In subjects of this kind, the anomalous nerve-aches referred to may be often removed, and a regular attack of gout or rheumatism prevented (a matter of great importance), by the timely use of Colchicum. A little of it should be given nightly, or twice

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daily, with some ordinary aperient; the neuralgic and precursory symptoms will subside, and a crisis be averted. A useful anti-gout pill (one, we mean, adapted to mitigate an actual paroxyms), consists perhaps of two parts of the extract of Colchicum and colocynth, and a half part of hydrochlorate of morphia; and repeated every hour or two, until the bowels and kidneys are acted upon; which occurring, pain subsides. The author remarks that "a solution of any of the preparations of iodine is said to form an antidote to an over-dose of Colchicum."

In the *New York Journal of Medicine, and the Collateral Sciences*, edited by SAMUEL FORREY, M. D., Vol. 2, p. 417, is M. METTA'S account of the obstetrical properties of Colchicum, or rather a short notice of his publication. This notice may also be found in the *Jour. de Med. et de Chirurgie*, Jan. 1844. In this notice of METTA'S, Colchicum acted promptly, and the patient soon delivered. He gave it in ten grain doses of the powdered root, which was repeated but once.

In the same Journal, Vol. 8, p. 409 (edited by CHARLES A. LEE, M. D.), may be found M. DONOVAN'S observations on Colchicum, and some remarks by A. T. THOMPSON. With regard to the modus operandi of Colchicum, DONOVAN conceives that it produces its effects on the circulation, and not on the stomach.

In the *American Journal of the Medical Sciences*, Vol. 17, p. 66, is a very valuable notice of the successful employment of the Colchicum autumnale in tetanus, with general observations on the treatment of this disease in Hayti, by WILLIAM G. SMITH, M. D. of Port-au-Prince. His account of the treatment of this disease is very satisfactory. His main reliance is Colchicum, frequently repeated and continued until emesis and catharsis supervene. In the same Vol., p. 501, is a notice of Dr. RITTON'S account of Colchicum for the cure of leucorrhœa.—(*Jour. Conn. Med. Chirrurg.*, Aug. 1835, from *Gazzetta eclettica de Verone*, Apr. 1835.)

From the *Medico Chirurgical Review*, Vol. 2, p. 430, may be obtained some valuable information relative to Colchicum, in arthritis, by Dr. COX. In Vol. 3, p. 279, is a notice by Dr. FROINUS of the value of Vinum Sem. Colchici Opiate in gonorrhœa. It is applicable in all stages of the disease, effecting a cure, upon an average, in about seven days. It is not only useful in infectious gonorrhœa, but in discharges from the mucous membranes from

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other causes. In Vol. 4, p. 44, may be found observations on the use of Colchicum autumnale in the treatment of gout, and on the proper means of preventing the recurrence of that disorder, by CHARLES SCUDAMORE, M. D., F. R. S. Ample experience has taught him, that if judiciously prescribed, it is innocent in its immediate effects, and innoxious to the constitution. His paper is a valuable one, and might be read with interest by most physicians, as well as profit. In Vol. 10, p. 192: Action of Colchicum on the urine, by Prof. CHELIUS, of Heidleberg. He claims that it causes a great increase of the uric acid. The Professor appears to employ Colchicum with great success in neuralgia of the face, in sciatica, rheumatic ophthalmia, dropsy of the joints, and in certain paralytic affections of the lower extremities connected with the arthritic diathesis. In Vol. 48, p. 93, Dr. ROBERTSON declares Colchicum to be decidedly an evacuant, and as decidedly a narcotic. He advocates its use in gout and rheumatism, hepatic disorders, and in hydrocephalus. His therapeutic directions for the treatment and prevention of gout are excellent, and may be read with advantage by every one.

The Lancet, 1849, Vol. 1, page 618: Dr. ROWLAND had lately treated tonsillitis with Colchicum. He had cured every case so treated. He had also seen Colchicum do good in erysipelas. Lancet, 1849, p. 373: "Influence of Colchicum on Longevity." If used with care, and under the watchful eye of a medical man, it, in reality, prolonged life. Lancet, 1850, p. 170: "Practical Observations on the use of Colchicum; a Diuretic and Hydragogue; by James Bird, M.D., A.M." Many valuable notices of Colchicum are recorded in Braithwaite, and, in fact, in almost, all medical journals; I trust, however, that I have instanced a sufficient number, to keep this remedy before the profession, as one capable of meeting the demads of as great a number of diseases, as any, that can be found in our list of remedial agents.

VENTILATION WITH PURE AIR.—A writer in the *Lancet* suggests that hospital and other buildings might be ventilated by bringing air in underground pipes from some healthy district in the country, or from the seashore. Water is thus brought into cities, and it would seem that air might with greater facility and less expense be thus conducted.—*Med. and Surg. Reporter.*

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Asclepias Cornuti.—Asclepias Syriaca (*Linn*).

(Milk-weed—Common Silk-weed—Red Ball—Sweet-scented Asclepias.)

BY A. F. PATTEE, M. D.

THE milk-weed is one of our common plants, growing by roadsides and in dry sandy fields, in considerable quantities, from Canada to the Gulf of Mexico. The stem is simple, and from three to four feet high, surmounted by numerous umbels or balls of flowers, of a pale purple color. The leaves are oblong, lanceolate, petiolate, pointed at the end and whorled, the under surface covered with short matted hair; segments of the corona, five; petals and sepals reflex; corona erect. The seeds are enclosed in oblong, pointed, rough pods of from two and a half to three inches in length; each seed is attached to a mass of long silky fibers, which can be made into a beautiful thread. The whole plant yields an abundant milky juice.

The flowers appear from June to August. But few of the flowers prove fertile.

This plant contains an alkaloid principle, *syricini*, but it does not supply the place of the whole plant, for its medicinal properties are feeble. It also contains starch, gum, sugar, and resin.

Physiological Effects.—Two ounces of the cold infusion, made from the fresh root gathered after the leaves had fallen, taken once every four hours, proved diuretic; two ounces of the warm infusion, taken once every two hours, proved diaphoretic; fifteen drops of the saturated tincture, taken once every three hours, had well-marked alterative effects; and one dram of the saturated tincture, repeated once every three hours until eight drams were taken, caused headache, drowsiness, and sleep. In all of the experiments, it increased bronchial secretion. The first experiment was made upon myself.

In examining the urine for three days immediately preceding the experiment upon myself, the average quantity of urine was 35 ounces per day, of a specific gravity of 1019·7; solid matter, 568 gr. Pulse 68.

After 12 ounces had been taken the first day, the quantity of urine passed in that time was 128 ounces; specific gravity, 1020; solid matter, 600 gr. Pulse 67.

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Second day, there was but a small increase of water, The specific gravity and solid matter, about the same. Pulse 66.

Third day, quantity of Asclepias same as the preceding days. The quantity of urine, 130 ounces; specific gravity, 1019·97; solid matter, 608 gr. Pulse 63.

On the 4th, 5th, and 6th days, the quantity of urine passed, averaged 135 ounces each day, and the amount of solid matter 700 gr. each day. Pulse 60. The diet and exercise was not materially altered from what it had been for a month past.

The medicine did not seem to cause any derangement of the health; the urinary organs were not irritated in any way. The only perceptible effect it had upon the brain, was to cause a calm, quiet feeling, perhaps a little drowsiness toward night.

The subject of the second experiment, was a young man 18 years of age, of good health. Pulse 75. At 9, P. M., gave him two ounces of the warm infusion; the young man in bed; in half an hour commenced sweating; in an hour he was sweating profusely, and continued to the rest of the night, the infusion being given once in two hours. The effect it had upon the brain was an agreeable sensation at first; after that had passed off, he expressed himself "awful sleepy;" when he awoke the next morning, said he had "slept rather hard;" felt no inconveinence through the day. It produced the same effect the following night. The third day, I gave him one dram of the saturated tincture, made from the dry root, once every three hours, commencing at 6, P. M. At 9, P. M., said his head felt a little dizzy, and had some headache. Slept sound through the night. Skin quite moist; passed four ounces more water in the morning than usual. After continuing this for four more days, had to discontinue it on account of the derangment it caused to the system; he had but little relish for food; appeared dull and stupid; bowels had moved oftener than usual; the tongue was covered with a white fur; pulse 64. In a few days he was as well as ever.

In cases where the pulse has been from fifty to sixty, they have increased to sixty-five and seventy. Large doses of the infusion, tincture, or fluid extract, will produce nausea and vomiting, and in some instances *ardor urinæ*. If the medicine does not produce diaphoresis, diuresis, or catharsis, violent headache will sometimes

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ensue; but, when given in medicinal doses, and for disease, we do not see much headache.

From the numerous experiments that we have made with it, both in health and disease, we should judge that it had alterative, diuretic, diaphoretic, anodyne, and expectorant properties.

Therapeutic Applications.—Although there has not been much written upon the use of *Asclepias cornuti*, yet it has been employed for many years by numerous physicians in New England, and also as a domestic remedy for dropsy, and other complaints. The multitude, respectibility, and strength of evidence in favor of this plant in recent colds, catarrh, pneumonia, suppressed secretions, etc., leave no room to doubt but that the plant is possessed of high medicinal qualities. Its expectorant effect in bronchitis and other pulmonary complaints, is substantiated by a multitude of authority unquestionable. It is also a valuable diaphoretic in feverish conditions, especially in children. We have used it in bronchitis with favorable effect; two ounces of the warm infusion may be given every three hours; numerous cases have done well upon this one remedy, and it is in fact a good substitue for the *Asclepias tuberosa*, which is rare in New England. As a diaphoretic and expectorant in pneumonia, I am favorably impressed with its action, and combined or given in conjunction with other remedies, it will be found a valuable adjunct to the treatment.

In idiopathic fevers, we have found the Asclepias to be beneficial; it quiets the patient when restless, promotes the secretions when suppressed, and exerts a healthy influence over the whole system, and places the patient in a favorable condition to recover. Of course, proper attention must be paid to hygienic principles, such as food, pure air, cleanliness, etc.

In acute rheumatism it has been used, and Dr. LEE says that "its actions bear a close analogy to the black cohosh." Of six cases of acute rheumatism that we have treated with the Asclepias, the average duration was eight days; the inflammation was confined to the large joints, with considerable pain and swelling. It had a remarkable effect in relieving the pain.

Prof. PHELPS recommended its use in gastric irritation, and in atonic dyspepsia.

It has been particularly recommended in dropsical affections, and it is thought to possess extraordinary powers. It has in my

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hands certainly proved useful in the removal of dropsical effusions. Dr. SMITH relates a case of a man of eighty, who had general dropsy, caused by taking cold; he was enormously swollen. He commenced taking two ounces of the cold infusion, every two hours; in twenty-four hours he had passed over three gallons of urine, and in a week's time all dropsical symptoms had passed off.

Dr. CLERBORNE recommends its use in chronic constipation, primary syphilis, dyspepsia, and ascarides.

In a low state of typhus fever, this plant has produced a moist state of the skin, when other diaphoretics had failed, and convalescence was at once established.

It has also been employed in dysmenorrhœa, and amenorrhœa. I have not had much experience with it in those complaints. My experience with this medicine has lead me to believe that it possesses valuable medicinial properties. The milky juice that exudes out of the plant when wounded, has been used locally for warts; and a poultice made from the fresh root, stewed to a pulp, has had considerable reputation in the cure of carbuncles, boils, and felons. It would, no doubt, be improved by adding Phytolacca decandra, or Veratrum viride; a combination that we have used in the commencement of those local inflammations, with good results—causing resolution in a few days.

The Asclepias can be used in powder, infusion, fluid extract, and tincture. For diaphoretic effects, the warm infusion will be best, and the cold for diuretic. The tincture, made with four ounces of the fresh root to a pint of diluted alcohol, can be used as an alterative, in doses of from five to fifteen drops, once in three hours; as a diaphoretic and diuretic, one dram in warm or cold water five or six times in the twenty-four hours.

The following combination for frequent and painful micturition, when accompanied with a small quantity of urine, will be found to be of service:—

℞ Tinct. Populus Trem. ..... f℥ ij.
Tinct. Asclepias Cor. ..... f℥ ss.
M. Dose, half to one dram, three times a day, in water.

PROF. DEVILLE, formerly of the Lind Medical College of Chicago, has been appointed Professor of Anatomy and Surgery in the Manchester Royal School of Medicine and Surgery.—*Cincinnati Lancet.*

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Oxide of Zinc as a Remedial Agent.

In the *American Medical Monthly* for November, Dr. S. Waterman has an article upon the therapeutical employment of oxide of zinc. After remarking that this remedy "exerts a powerful sedative or soothing influence over the brain and the ganglionic nerves," he makes the following therapeutical suggestions:—

"1. In *Delirium Tremens*.—Indeed, when all other remedies seemed to fail, when opium and its kindred narcotics had been unable to make any impression, and a fatal issue seemed unavoidable, oxide of zinc has in several instances rendered me signal service, and fully to justify the confidence I feel in its therapeutical power. It need not be given in large doses even here; two to three grains every two hours are sufficient. It may be combined, if necessary, with opium or other remedial agents; and its use should be continued for some time even after the delirium has been overcome.

"2. In *Eclampsia Infantilis*, after the fits have been broken by the free use of chloroform, zinc will be found a very serviceable agent to control the cerebral and nervous agitation, which almost always still harass the little patient for a short time. I have often combined oxide of zinc, in grain doses, with calomel, digitalis, and pulv. scillæ. Its effects have been the most gratifying, and the impartial practitioner can certainly readily verify the truth of the observation. As in the former disease, its use ought to be continued after the convulsions themselves have disappeared.

"3. In the *eclampsia* happening during pregnancy or labor, or menstrual irregularities, oxide of zinc acts beneficially upon the sensorium, with or without the administration, at the same time, of opium and calomel; especially in those cases where the convulsions originate from a high state of nervous sensibility, as in the case in subjects to hysteria, in its various forms. After the employment of chloroform, zinc will be found to exert its sedative influence in a most positive manner. I have given two or three grains per dose every two hours, and would not advise a larger dose. In convulsions produced by plethoric habits, its effects are less reliable; while in convulsions arising from uræmic toxicatio, its effects have not been sufficiently tried to warrant any positive statement in its favor.

"4. It will be found a most reliable agent in the various forms of *hysteric convulsions*, depending, as they do in most cases, upon inordinate action of the nerves and their centers. It is in these cases that its influence over the plexus of the stomach is most strikingly verified.

"5. In the *exanthematic diseases*, when the eruption is accompanied by cerebral irritation, and even by convulsions, oxide of zinc has long been known to exert a soothing effect upon the nervous centers, and has been used by the most experienced European practitioners.

"6. I have treated a few cases of *epilepsy* and a few cases of *chorea* with zinc. I have not had sufficient opportunity to watch its influence, but believe

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it to be, as stated by various practitioners from time to time, for more than half a century, a very efficacious remedy in some cases; more especially it is true of chorea than of epilepsy.

"7. European writers recommend it as an excellent remedy in asthmatic difficulties and hooping-cough; but I have no experience to offer on this head nor on the three following.

"8. In England and in this country it has been very highly extolled against the night-sweats of phthisis, and as useful in all cases of profuse perspiration.

"9. It has also been well recommended against worms, and still more against chronic dysentery.

"10. To complete the list, I must yet mention that it is reported to have cured some of the most obstinate cases of intermittent fever."

Dr. Waterman says the estimates he places upon this remedy are based wholly upon the results of his own experience and observation.—*Med. and Surg. Reporter.*

Anarcotine as an Antiperiodic.

By E. H. JANES, M. D., of New York.

The prospect of an ultimate failure in the supply of quinine, or even the increasing expense attending its employment, is sufficient to induce the profession to hail with pleasure the introduction of any new remedy that may serve, in some degree, as a substitute for this world-renowned specific for intermittents of every grade and type. A number of remedial agents have already been added to the list of antiperiodics, each having its advocate by whom its claims are presented to the profession with the utmost confidence, and in the most favorable light. The employment of anarcotine as an antiperiodic is not altogether new. We learn from our standard works on materia medica that Dr. Roots, of England, was induced, by the bitterness of its salts, to employ it in intermittent fever, and that Dr. O'Shaughnessy, of Calcutta, obtained the happiest results from its use, considering its antiperiodic powers superior even to that of quinine. He gave doses of three grains three times a day, and never found it to produce narcotic effects, headache, nausea, or constipation, but to act powerfully as a diaphoretic. He gave it "with the full expectation of arresting the next periodic return of the fever." The testimony of these two gentleman seems to have attracted but little attention among the profession, yet recent experiments have shown that the article possesses sufficient therapeutic value to entitle it to more confidence than it has hitherto received. *The Indian Annals of Medical Science*, for September, contains an elaborate report of Dr. A. Garden, of Ghazeepore, addressed to the Deputy Inspector General of Hospitals, giving the results of six hundred and eighty-four cases of intermittent fever treated by this remedy, and tabulating them in various forms, so as to represent the severity of the cases treated, the duration of treat-

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ment, the amount of anarcotine used, the economy of the drug, and various other points of interest. Before examining the details of this report a few words concerning what is already known of the natural history and properties of anarcotine would not be out of place. Anarcotine has been usually known by the name of narcotine, from the erroneous impression that it represented the narcotic principle of opium; though in truth when pure it contains no narcotic properties whatever; and hence it has been proposed to spell it with the prefix *a*, in order to designate its real character. It is known as one of the crystalline constituents of opium, "obtained by extracting the aqueous extract with ether, which upon evaporation leaves it nearly pure." It is described as consisting of white, silky, flexible, acicular crystals, without taste or smell, insoluble in cold water and alkaline solutions, sligtly soluble in boiling water and cold alcohol, more readily soluble in hot alcohol, ether, and the diluted acids, also in the volatile and fixed oils. With dilute mineral acids it combines to form salts of a bitter taste, in one of which it is administered generally in the form of sulphate. Chemistry has given us four homologous varieties of this alkaloid, viz. the normal, the methylic, the ethylic, and the propylic anarcotine. Each of these has a different chemical formula, and when treated with caustic potash they yield respectively ammonia, methylamin, ethylamin, and propylamin. This, however, is a matter of more scientific curiosity than of therapeutical importance. Anarcotine, when administered in doses of gr. ss. to gr. i., acts as a tonic, increasing the appetite, and giving general tone to the system; by larger doses the action of the heart is increased, the pulsations become more frequent and fuller; and in still larger doses (gr. v. to gr. x.), it produces increased warmth of surface and diaphoresis. Nausea, giddiness, and sometimes vomiting have followed the administration of large doses, while some claim to have given it in doses of twenty, thirty, and even sixty grains, with entire impunity. This discrepancy may arise, perhaps, from the use of an impure preparation, or from the general state of the patient's health contra-indicating its employment.

The value of this article as an antiperiodic is what now claims our immediate attention, and a brief abstract of Dr. Garden's report will enable us to judge, as far as the testimony of others are concerned, with some degree of intelligence in reference to this part of the subject. Dr. G. commenced the use of anarcotine during the prevalence of what he calls "a most severe, and fatal epidemic of fever," and during the months of Oct'r, Nov'r, and December, 1859, and January, 1860, he administered it to 525 patients, among which nine deaths occurred. In order to thoroughly test the value of the drug accurate notes were kept of 194 cases of quotidian and tertian intermittents, and these he has arranged in tables of different forms, from the examination of which we learn that in 154 quotidians the remedy failed in four, and in forty tertians it failed to cure in three cases, making the percentage of failures 3·6, or one in 27·71 in which the continuance of the symptoms after a fair trial made it necessary to change the treatment, from which he concludes that in this view the remedy is fully equal to quinine. Of the 150 quotidians cured,

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the treatment did not commence till after the occurrence of the fourth paroxysm; and in tertians not till after the third or fourth. In the former the fever returned on an average 2·48, and in the latter 2·54 times after the first administration of anarcotine; though in nearly one-fourth of all the cases the first dose checked the fever so that it never returned, and in nearly two-thirds of the cases treated the fever was cured after the return of the second paroxysm. These facts are considered sufficient, at least, to entitle anarcotine to rank after quinine as an antiperiodic. In an economical point of view the author's figures are plain and conclusive. In quotidians the average amount required in all cases, including the amount given on the first day on which the paroxysm did not return, was not quite one scruple; which, together with the amount taken during convalescence, made an average of a little over thirty-five grains a case. The average amount required in tertians was greater, being 57·8 grains. In all the cases of both types the average amount requred to effect a cure was 22·7 grains, and that taken during convalescence was 16·3 grains, or in all thirty-nine grains per case. In order to fully appreciate this part of the subject, in must be remembered that these notes were taken during the prevalence of a severe epidemic, in which many cases proved rapidly fatal when not treated, and all were more than ordinarily difficult to cure, and especially prone to relapse, making it absolutely necessary to continue the use of the medicine for some days after the cessation of the fever. It is not presumed that anarcotine is of equal value to quinine; but a remedy that fails in only 3·6 per cent. of all cases treated, and cuts short the fever before the occurrence of the third paroxysm, deserves at least the second place in the ranks of antiperiodics. Occasionally disagreeable symptoms were caused by large doses, such as nausea, giddiness, and vomiting. These for the most part were obviated by diminishing the dose, while the frequency of administration was increased. Of its value in the treatment of remittent fever Dr. G. has kept no records of his experience, but his general feeling is not so much in its favor. The doses used during this epidemic were as a tonic, gr. ss. combined with a small excess of sulphuric acid; and as an antiperiodic, gr. iss. to grs. iij. The tendency of the remedy to constipate the bowels made it necessary to commence the treatment with the administration of a cathartic, and the occasional use of some mild laxative. Such is the testimony of one whose large experience and large observation eminently fit him to speak with intelligence on the subject, and which strongly supports the opinion formed by Dr. O'Shaughnessy and other medical officers many years ago.—*Amirican Medical Times.*

Belladonna in Hooping-Cough, Incontinence of Urine, etc.

In the *American Medical Monthly* for October, Prof. A. Jacobi has a clinical lecture upon belladonna in treatment of diseases of children. The article is deserving of entire reproduction, had we the space at command. A few extracts must suffice.

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"Belladonna is the most powerful remedy in hooping-cough. I scarcely remember a single case in which its administration, for years past, proved unsuccessful in shortening the duration of the process. The result obtained by me has generally been this: That a well-developed case of hooping-cough, after the diagnosis was made certain beyond a doubt, would last for only three or five weeks longer, instead of running through its full course of months and quarters of a year. The effect is generally not a sudden one."

After considering the objections to its use, and remarking upon the inefficiency of the doses, as prescribed by many, as for instance a sixteenth, a forty-eighth, or a thirtieth of a grain, he says:—

"These doses could not but prove unsatisfactory, and thus it happened that the remedy was misappreciated and given up. * * * * * *

"Infants of six or eight months of age, affected with hooping-cough, require a sixth of a grain of either the root or the alcoholic extract three times a day; children of three or four years tolerate three doses, each of half a grain. These doses appear to be very large in proportion to those tolerated by adults but it is a fact which can be easily verified, that the effect of belladonna on the pupil and brain will hardly ever be perceptible in children from these or smaller doses."

In regard to the objections to these full doses, he observes:—"I, for my part, soon found that those children suffering from hooping-cough who exhibited general erythema from an aparent overdose, recovered soon, while others, in whom no such symptom was observed, remained sick for a long time; and continued experience has proved that the occurrence of this symptom is absolutely necessary for the full remedial effect. To obtain a cure in hooping-cough, the remedy *must be given* in a dose sufficient to produce *erythema, or at least a flushed condition of the face*, and, as it were, feverish appearance after every dose of belladonna. Thus the dose is to be gradually increased until this result is obtained. It is a remarkable fact that very young infants may take unproportionately large doses; at all events, I do not remember a single case in which less than half a grain was taken in the course of a day."

The following is one of Dr. Jacobi's prescriptions:—

"℞ Ext. bellad. alcoh. ..... gr. vj.
Aquæ ..... f℥ ss. M.
"S. Twenty drops three times a day, (for a child of three years.)"

We may here observe that Prof. Jacobi's experience in the disases of children is, perhaps, unsurpassed by that of any man of his age in America, and his opinions are entirely worthy of credit. To many, and perhaps most, of our readers this last remark is entirely unnecessary.

The doctor does not lay claim to priority in the use of belladonna in hooping-cough. We have used the belladonna in hooping-cough since 1852, and with most satisfactory results. We commended it in the *Amer. Med. Monthly* for 1859, also in the same journal for 1860. In the August number of the *American Journal of Medical Sciences* for 1839, Dr. Jackson, then of

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Northumberland, published a paper upon the use of belladonna in hooping-cough. In the same journal for October, 1852, Dr. Hiram Corson has a paper upon the same subject. Dr. Corson was in the habit of curing his patients in from *one* to *two* weeks. We think Prof. Jacobi would get better results by giving *smaller doses oftener repeated.* At least this is our method. We have followed Dr. Corson, and as the subject is of great importance, we shall quote Dr. Corson's method. He says:—"I put eight grains of extract of belladonna into one ounce of water. *Nine drops* of this solution contained just *one-eighth* of a grain of the extract."

In a case reported, Dr. Corson says:—"Of this I directed him to give his child nine drops every *two hours until the pupils were dilated, face flushed, mouth dry, and vision confused.* If these effects were not produced the first day, *then to increase the dose three drops daily.* I was informed that the child was entirely cured in a week."

Returning to Dr. Jacobi's lecture, we quote a remark upon the influence of belladonna over *incontinence*: "Incontinence of urine is another of the troublesome affections which are in almost all cases easily removed by the administration of belladonna. From the almost regular effect it has, we must conclude that the majority of cases depend on increased irritability of the bladder, which is relieved by the administration of the narcotic."

Prof. Jacobi says he has given the belladonna in every case of incontinence of urine that has come under his observation during the past four years, and he has "Not *seen a single case in which the medicament proved unsuccessful.* A complete cure was generally obtained in half a week or a week, by doses of the same strength, or a little less than those given in hooping-cough."

In incontinence of *feces*, Prof. Jacobi has found the belladonna equally efficacious.

The docter has no confidence in the prophylactic powers of belladonna over scarlet fever. His opinion is based upon a carefully observed personal experience. The medicinal powers of belladonna, like those of arsenic and strychnine, have not been sufficiently appreciated.—*Med. and Surg. Reporter.*

A Case of Confirmed Opium-Eating.

Harriet Knox, a native of Maryland, aged thirty-two, was always in delicate health, had all the usual diseases of childhood. Fourteen years ago, at her confinement, instruments were employed to effect delivery. Opium was then prescribed to mitigate her pains and distress, and she has continued to use it since. She has taken the amount of several ounces of laudanum during a single day, and has become a confirmed opium-eater.

You will observe her pale, haggard, anxious expression of countenance; her tongue is dry; the secretions are all dried up. She has some cough, and considerable tenderness of the abdomen, accompanied with chronic diarrhœa

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of the most intractable kind, having passages upon slight movement of the body. This latter symptom may strike you as anomalous, especially as opium is one of the best astringents in medicine. But this is the invariable rule with opium-eaters. They suffer greatly from diarrhœa. The intestines become worn out, and incapable of natural action. Can this inveterate habit be cured? If your patient has strength of mind, and energy of purpose sufficient, it may be. The fascination of the drug is strong, but recoveries have been made. The famous De Quincy was once a confirmed opium-eater, and he has given the world the narrative of his dreadful experience in its use, and of his struggle to break away from the enchantment. He accomplished it by great firmness of purpose, and by violent bodily exercise, using also, I believe, other stimulants as a substitute. In the case before you the quantity was reduced to one-half ounce of laudanum at night, but it cannot be entirely discontinued. Sooner or later attacks of great derpression will be produced by the drug, a depression and exhaustion which even a large dose will not allay. This is the inevitable result of opium eating. At first it is an excitant, producing pleasant dreams and entire freedom from all anxiety. The sensations are all exceedingly pleasurable, but the sedative effect follows, producing debility and depression of spirits which requires an increased dose to overcome. So it goes on from day to day. As in cases of acute poisoning by opium, the pupils are contracted. In the case before you, recovery is very doubtful, if not entirely hopeless. We are trying to reduce the amount of the drug.—(*Service of Dr. DaCosta, Philadelphia Hospital,*) *Med. and Surg. Reporter.*

Croup, its Varieties and Treatment.

Dr. E. Whittle, senior surgeon to the South Dispensary, Liverpool, believes that the uncertainty among medical men, as to the best mode of treating croup, arises, in some measure, from the confounding of different forms of laryngeal affections, which require, in some respects, different treatment. He divides the affections into seven varieties, which, though strictly speaking they cannot all be called croup, yet are all affections of the larynx, attended with constriction of the glottis, and are often confounded together udder the name of croup:—

1. Cynanche trachealis of Cullen; true croup, with formation of false membrane, characterized by the suddenness of the attack, and often proving fatal if relief is not early afforded. In the treatment of this variety, he has long since abandoned the old plan of bleeding, and giving calomel and tartar emetic freely; but is more successful by having recourse, in the first instance, to the warm bath and an emetic, followed, if the symptoms persist, by small doses of Dover's powder and nitrate of potash. If the tongue is foul, or the bowels loaded, a dose or two of calomel accompanies the first doses of Dover's powder. Should the disease progress, he would resort early to tracheotomy, before

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the strength is too much reduced, or the false membrane is deposited far down the trachea.

2. The angina stridula of Bretonneau; pseudo croup of Guersant; acute asthma of Millar, characterized by spasm of the glottis, excited by the inflamed and thickened condition of the mucous membrane of the larynx and trachea, without formation of false membrane. It commences with an occasional hoarse cough, exciting little attention for the first few days, when the breating becomes croupy, and the cough assumes a sharp, ringing, and barking sound. This is the most common and dangerous form of croup, and very generally confounded with cynanche trachealis. A little temporary relief may be afforded by the old routine of leeching, emetics, calomel, and antimony; but, after a few hours, the breathing becomes more stridulous, the symptoms rapidly increase in severity, and unless tracheotomy be performed, the child soon dies of suffocation. The treatment of this form of croup does not differ from the preceding; but the point is to attend to it before the urgent symptoms come on, and persevere until the shrill barking cough disappears. Should the case be neglected until the breathing becomes croupy, no time should be lost, but tracheotomy at once resorted to. It is in this form of croup that the operation is pre-eminently successful, there being no false membrane to obstruct the tube. Bretonneau describes this disease as of little importance, which may be true in the dry climate in central France; but our author insists that in the cold, damp climate of England, particularly in the winter months, this affection is the forerunner of the most fatal form of croup.

3. Croup complicated with diphtheria, which is diphtheria extending into the larynx, the only treatment for which is tracheotomy.

4. Symptomatic croup, sometimes met with in the early stages of the exanthematous diseases. If treated as cynanche trachealis, the rash will generally make its appearance, and the croup subside. This should not be confounded with that form of croup, often met with in the advanced stages of rubeola, scarlatina, variola, &c.

5. Croup caused by an ulcerated condition of the larnyx, either syphilitic, or following the ulcerated throat of scarlatina or variola. The immediate cause of the croupy breathing is spasm, excited by the irritation of the ulcers, and may often be treated successfully by tracheotomy. These cases require the topical application of a solution of nitrate of silver to the larnyx.

6. Mechanical croup, from œdema of the larnyx, &c., can only be relieved by a timely operation.

7. Nervous croup; laryngismus stridulus, purey a nervous affection, generally a complication of dentition, and mostly met with in families of a stumous diathesis. It comes on suddenly, with a convulsion of more or less severity, followed by a shrill, gasping inspiration, something like a whoop after a paroxysm of whooping-cough. The attack may be short, but repeated once or twice in the same night, and it sometimes happens that the child is suffocated at the very outset. With regard to the treatment of this affection, he simply alludes to it as consisting, at the time of the paroxysm, in dashing cold water

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on the child's face, plunging his feet into hot water, on anything which will give a sudden shock to the system, and in the intervals strengthening the child by the use of tonics, and by having it almost constantly in the open air. —*American Medical Times; Pacific Medical and Surgical Journal.*

[From Braithwaite's Retrospect, part 44.]

Case of Acute Rheumatism, with Unusual Complication.

By Prof. Reid.

[At a meeting of the Belfast Clinical and Pathological Society, Prof. Reid related the following case:]

A young gentleman, aged 16, enjoying a good home, was attacked for the second time with acute rheumatism. It began in the left ancle, and successively involved the knees, the elbows, and the wrists. A careful examination of the heart did not detect any evidence of disease as the result of the attack he had suffered from six years previously.

The treatment adopted at first consisted of alkaline aperients, alkaline anodyne lotions, a combination of calomel, squills and opium; and enveloping some of the joints in cotton wool. For the first four days his bowels were very difficult to act on, so that he took a very large amount of Rochelle salts without their producing anything like a proportionate aperient effect. I thought afterwards that this might have had some influence in producing a complication I had never met with before in acute rheumatism, and which has caused me to think the case worthy of record.

On the seventh day of his illness there appeared an ecchymosed patch or blotch, of the size of the hand, on the outer side of the right leg, not raised in the skin, nor removable by pressure; this was soon followed by similar patches on the arms, and by redness and great swelling of the left eye-lid, with effusion of blood beneath the conjunctiva. The right eye was soon involved in the same way; then the forehead and scalp swelled up into tumors the size of half an egg, producing with his swollen face, a most disagreeable appearance.

The gums had become slightly swollen and coated from the mercury; on the day that the first discoloration was observed on the leg, the mercurial was at once discontinued, and an opiate and tonic treatment adopted. Salivation did not follow, nor did the gums bleed at any time. There was no cough, nor oppression in the chest. The stomach now became very irritable, rejecting everything, and I became alarmed at to the result, and requested Prof. Ferguson to see him.

He, like myself, had never met with a similar complication in acute rheumatism.

He suggested ten minims of diluted sulphuric acid every two hours to relieve the vomiting, which it did immediately, after the failure of full doses of

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opium, ether, and the aromatic sp. of ammonia. Tonics, opiates, and nourishment were continued.

At the end of four days the swelling of the face and forehead began to subside, and the blood effused under the conjunctiva was slowly absorbed, and the discoloration of the skin gradually disappeared, as well as the affections of the joints. That these peculiar symptoms resulted from some change in the blood, permitting its transudation through the vessels, does not, I think, admit of any doubt. It then struck me, that possibly the alkaline solution, which had been taken so freely during the first few days of his disease, and which evidently had remained in the system, as it did not produce its usual aperient effect, was the cause of this altered condition of the blood, it being known that alkalies produce a more ready solubility of the fibrine, which, becoming more fluid and less coagulable, permits the blood to transude.

Believing that there is generally an excess of acid in the system in acute rheumatism, I have for many years past invariably administered alkaline aperients freely in the treatment of this disease, without their being followed by any such scorbutic symptoms as appeared in this case; but then, I had never known three or four ounces of Rochelle salts to be taken daily for several days without producing free continuous purgation.

It is, therefore, possible that the introduction and retention in the system of so much alkali might have injured the quality of the blood. For a few days after convalescence had commenced the evacuations from the bowels were slimy and streaked with blood, but the latter never appeared in such a quantity as to indicate intestinal hæmorrhage.

I was told, at my first visit, that his medical attendant, in the former attack of acute rheumatism had stated that there was no heart complication. As I saw him within twelve hours after the commencement of the present one, I carefully examined the state of the heart, and found no evidence of present or past cardiac disease. Nor did a daily examination detect any till the morning of the fifth day, when a feeble murmur was heard at the apex, which continued feeble till the morning of the eleventh day of his rheumatism, when it was found to have become much louder.

For the first six days of the cardiac complication (during the two latter of which I had the advantage of Dr. Ferguson's opinion), no murmur could be heard through the solid whalebone sthethoscope, though it was heard distinctly through the ordinary tubular one. On the seventh day it had become so loud that it could be heard through both, and continued to be so for five or six weeks, when it gradually subsided under the influence of blistering and free doses of hydriodate of potash.

The heart's action was easily excited for several months afterwards, and its impulse, on exertion or running, was so strong that it was often complained of.

This, however, gradually passed off, and a careful examination of the heart, made at the expiration of twelve months, from this last attack, failed to detect any evidence, or even suspicion, of disease, either at the valves or of the substance of the heart.

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This young gentleman had scarcely become convalescent before his younger brother was attacked also with acute rheumatism for the first time.

He was treated at the commencement, with alkalies and moderate doses of mercury, care being taken that free purgation should take place.

He also suffered from a cardiac complication, which pursued much the same course as that in his brother, and left no permanent injury in the heart.

Fortunately, he was not attacked with scorbutic discoloration of the skin, nor with the swelling of the face, or irritability of the stomach which had excited so much uneasiness and alarm during the treatment of his brother. His brother's complication, should not, however, cause us to abandon the administration of alkalies during the treatment of acute rheumatism, but only inculcates the necessity of our insuring their non-retention in too large amount in the system by a combination of purgatives with them. Indeed the recent experiments of Dr. Richardson, which proved that he could at will produce inflammation in the interior of the heart, by the injection of lactic acid into the peritoneal cavities of dogs, placed the alkaline treatment of acute rheumatism on a much more legitimate basis, by giving additional weight to the inference, that the cause of the disease and its cardiac complications was an excess of acid in the system.—*Dublin Hospital Gazette, June*, 15, 1861, *p.* 177.

Case of Prolapsus Uteri, Accompanied by Incontinence of Urine.

Cure by Operation.

Under the care of M. Harry Stapleton, M. R. I. A., Surgeon to Jarvis street Hospital and the Mater Misericordiæ Hospital, etc.

Reported by Mr. David Daly.

Mary Ryan, aged 48, was admitted into Jarvis-street Hospital, under the care of Dr. Stapleton, on the 9th of May, 1861. About six years ago she was delivered of her seventh child. For three months subsequently she suffered from uneasiness about the lower part of her abdomen accompanied with bearing down pains, and also pains in her loins. At the end of this period, as she was in the act of passing water, a tumour came down between her thighs, which increased so rapidly from day to day that she became, after a short period, unable to walk or even to stand upright. She continued in this state for nine months before seeking medical relief, since which she has been the inmate of more than one hospital, and various means has been tried which only relieved her imperfectly for a time, being subsequently followed by much irritation and annoyance.

On examination, a tumour formed by the womb, and nearly equal to the size of a child's head, was seen protruding from the vulva, the os being directed backwards. This tumour appeared to be covered by a dry smooth skin, with

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the exception of its anterior surface, which was excoriated by the constant dribbling of her urine, which she was unable to retain.

After some days confinement to bed in the recumbent position, and during which period menstruation took place, the tumour became reduced in size and was returned. An operation now having been believed necessary, purgative medicine was ordered on the evening of the 28th inst., which acted well, in addition to which an enema was administered early on the morning of the 29th inst. The bowels having thus been freely emptied, the operation was performed after the following method:—The patient being put under the influences of chloroform, was placed on the table on her back, her thighs being flexed and widely separated. The mucous membrane was then dissected from the lower and back parts of the vagina, and also from the labiæ majores, the wound resulting from which was of a horse-shoe shape. Three quilled sutures of thick silver wire were then deeply itroduced, and the denuded parts being freed from blood were brought into close apposition; finally, the outer margins of the labiæ were stitched together by five small interrupted sutures of silver wire. The patient being removed to bed, water-dressings were applied, and a pill containing a grain of opium given, which was directed to be repeated every fourth or fifth hour, as might be required, and the urine drawn off by a catheter every sixth hour.

30th: Notwithstanding the use of the opium the stomach cotinued very irritable. Effervescing mixture and hydrocyanic acid were now prescribed.

31st: The pills were discontinued, as she attributed to them the irritability of her stomach.

Jan. 1st: Stomach quiet and slept well.

2nd: The deep sutures were withdrawn. The interrupted sutures were removed on the two following days.

8th: The parts were found to be firmly united.

10th: Complaining of some uneasiness in her bowels, a mild purative was given, followed by an enema of warm water and olive oil, which relieved her; and on the 25th she left the hospital cured, and expressed herself most grateful for the relief afforded by the operation.—*Dublin Medical Press; British Am. Journal.*

Opium and Quinia.

The antagonistic effects of these two remedies have recently been made a subject for investigation by Dr. Nivison, of Schuyler county, New York, who, instead of endorsing the rule laid down by Dr. Gubler, that "they ought not to be administered simultaneously," claims that each only neutralizes the bad effects of the other, and that the happiest therapeutic result is often derived from their combined action. In support of this, he reviews the separate action of each, premising that no two articles enter more largely into use than the preparations of bark and opium, some of their properties being determined with a certainty that amounts to absolute demonstration, and that both have a

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powerful affinity for the nervous system, each impressing it in a manner peculiar to itself.

Experiments have proved that quinia given in health augments the amount of phosphates, and in disease prevents the destruction of nerve tissue. Upon the circulatory system its effects are to give contractile power to the capillaries, giving us control of almost all forms of venous and capillary congestion; to approximate the frequency of the pulsations to the healthy standard; and upon the blood, its influence is not only on the phosphates, but it diminishes the amount of uric acid, and defibrinates the fluid, which may throw some light on its action in overcoming congestion, and subduing inflammation. The action of opium is to equalize the circulation; it stimulates the nutritive or reparative process, as in the healing of old ulcers, &c.; it retards the too rapid metamorphosis of the tissues, indicating its employment in exhausting fevers, wasting discharges, &c; not to mention its more familiar effects in removing pain, procuring sleep, &c. Although there are many exceptions to the uniform action of each of these remedies when administered singly, he claims that the number of exceptional cases will be greatly reduced when they are given simultaneously. Many acute inflammatory cases will promptly yield to the influence of full doses of opium, where these doses cannot be given without the risk of so far paralysing the nervous energies as to induce fatal congestion, which quinia will overcome by its contractile powers over the capillaries. Quinia counteracts the tendency of opium to reduce the respiratory action, and also obviates the unpleasant after-effects which frequently follow full doses of opium. It assists opium in cases of extreme exhaustion from protracted hemorrhages, &c., by preventing undue narcotism, and by maintaining the reaction without those frequent repetitions of opium otherwise necessary. It also overcomes a large proportion of idiosyncrasies. In many diseases the dangerous congestion of some internal organ requires the contractile action of quinia on the capillaries of the congested parts; but upon trial, we sometimes find we have imparted a peculiar action to the general circulation, aggravating rather than relieving the congestions. A sufficient amount of opium controls this excitement, and diverts the circulation to the surface, thus assisting the legitimate action of the quinia. Other morbid conditions are mentioned, in which experience has demonstrated that the beneficial effects of either remedy are more readily obtained by administering the two in combination, while the unpleasant effects of either are in a like manner obviated.—*American Journal of Medical Sciences; Pacific Med. and Surg. Jour.*

Spermatorrhœa.—In the *Cincinnati Medical and Surgical News*, Dr. Hunberlier describes a method of treating spermatorrhœa, by anointing the perineum three times a day with an ointment composed of extract of aconite and lard. The thing is worth a trial, substituting, however, the veatrine for the extract. We have not yet found any medicines that exert much influence on the disease, and, as the natural remedy for it is sometimes difficult to obtain in this country, the treatment above recommended may be tried, as at least it can do no harm.—*Pacific Med. and Surg. Jour.*

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[From Braithwaite's Retrospect, part 44.]

On the Treatment of Diarrhœa by Nitric Acid and Opium.

By Dr. Patrick J. Hynes, Nottingham.

[Dr. Hynes recommends an old favorite remedy, which is sometimes forgotten, and we therefore think it well to let the reader see it again. He says:]

About ten years since, diarrhœa and dysentary prevailed rather extensively in this locality, and emboldened by the successful treatment of these diseases from the remedy I was in the habit of employing, I ventured to bring it, through the medium of the public journals, into notice, and since that time I have been repeatedly assured by many gentlemen who adopted it, that my opinion of its efficacy has been by no means exaggerated. I believe I am indebted to the work of Dr. Abercrombie 'On Diseases of the Abdominal Viscera,' for the formula I am in the habit of emoloying; but as I write from memory, and have not an opportunity of confirming my opinion on this point by a direct reference to that excellent work, I do not wish to deprive any other author of whatever merit may be found to attach to its introduction as a remedy for those diseases.

I may observe that during the last four or five weeks diarrhœa has been very prevalent in this locality, and I do not overstate when I assert that I have used it in over a hundred cases already, and always with almost instantaneous benefit. The formula that I generally employ is as follows: Compound infusion of gentian, eight ounces; tincture of opium, a dram to a dram and a half; nitric acid, twenty minims; one ounce to be taken after every liquid stool or painful alvine evacuation. A mustard plaster applied to the epigastrium, and drinking sparingly of ice-cold mint-tea, relieve the sickness and thirst that frequently accompany the severer form of these diseases. I have found the remedy equally beneficial in some rather intractable forms of dysentery. I would strongly urge upon gentlemen, who meet with dysenteric cases, to give it a trial, as I feel satisfied they will find it a very powerful curative agent in their hands.

In an old number of the 'Medical and Physical Journal,' from which several years since I made an extract, I find the following from a Mr. Hope, of Chatham. He says:—

"The first occasion of its use was remarkable. A young man, of sobriety and temperance, had suffered long with dysentery, and had been attended by a friend of mine some time, who recommended those remedies that high authority and experience pointed out for relief; but finding no advantage, he sent for me, expecting more might be done. Nothing, however, recommended was successful, and, as I could but go over the same ground, no prospect of relief appeared; indeed his death was daily expected. At this time a woman who lived with him was attacked with dysentery, with extreme thirst. An acid occurred to me; but fearing it might produce unpleasant effects, opium was added:—Nitric acid, two drams; opium, two grains; water, two ounces;

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a spoonful to be taken in any vehicle three or four times daily. The effect produced was so great that my dying patient, unknown to me, begged to partake with her, and when I saw him next morning, which to my great surprise was with a cheerful countenance, he told me if ever I had a patient ill with his complaint, I should never fail to send the drops I had sent for the woman, for they had relieved his complaint at the first dose, and he was sure he should mend now, for they had saved his life this time. This was the only medicine he took, and in a few days he was able to walk about his room. In a third case I tried the acid without the opium, but it did not succeed. I then united them, and it effected immediate relief. I was still unwilling to persuade myself into the belief of its being a specific remedy, until a case of so extraordinary a nature occurred as compelled me to decide unequivocally in its favor. A young lad, sixteen years of age, fell over a dredging-boat into the water in the month of July last. Indisposition succeeded, but to what degree I could not determine, as another practitioner was at first called to his assistance. Finding no relief, they applied to me, requesting my attendance. This was near a month after the accident. The remedies I applied failed in their efficacy. His friends, desparing of relief, requested me not to trouble myself to attend him any more (they lived six miles from me,) saying he must be left to his fate, being assured that a day or two more would finish the scene. At this time I recommended the anodyne, and with great difficulty it was that they could be persuaded to give it a trial. Twenty-four hours had not elapsed before he began to find relief, so that in four days he left off the remedy. The disease returded; reapplication of the drops again removed it, and in a very short space of time, without any other medicine intervening, he became as hearty as ever he had been. The manifest advantage of the medicine was recognized by the parents; nor did they spare unjust reflections that I did not employ it before."

I am unwilling to theorise upon the *methodus medendi* of what I believe to be the principal agent in the above formula; yet I cannot help thinking that the nitric acid possesses some disinfecting agency, no less than an astringent efficacy, over autumnal diseases. "The fumes of nitric acid are believed to be efficacious," says the late Dr. Montgomery, "in destroying the effluvia of typhus and other febrile diseases." Diluted with water so as to form an acidulous drink, Dr. Duncan of Edinburgh used to employ it in the low fevers that prevailed in the suburbs of that town. But independent of its chemical action over animal effluvia, it appears to me to act as a direct astringent in all diseases of the mucous membrane. Thus is purulent ophthalmia, what remedy is so efficacious as nitrate of silver in solution? In fact, in all mucous membrane discharges it is almost the sole remedy upon which the surgeon depends; and of course the nitric acid is the chief agent in this valuable therapeutic. I am in the habit of employing a formula of a nearly similar kind as a topical application, but with double the amount of acid, in cynanche and in diphtheria; and I can speak very strongly upon its beneficial effects. In broken-down constitutions impaired by mercury, by syphilis or other irregular-

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ities, the above remedy will be found frequently valuable; and given in combination with taraxacum, it will prove very servicable in sluggish conditions of the liver. I am in the habit of employing it with very considerable advantage in the diarrhœa of infants, and, combined with the muriated tincture of iron, in tabes mesenterica. I may further state that I have given the other acids, singly and in combination, the full benefit of a fair trial in all the above forms of disease; and, without any prepossession or prejudice, my experience enables me to give a decided preference to the claims of the nitric acid in combination with opium, as a very superior therapeutic remedy. I have not had an opportunity of making trial of it in the very severe forms of epidemic cholera, although I have had formerly ample opportunities of treating that disease. I have, however, many years ago, tried extensively, *inter alia*, the plan of treatment recommended by Dr. Toulmin of Brighton, thus anticipating his views (see the 'Lancet' of August 17th), which certainly look well in print, particularly as they are eloquently, indeed elegantly, introduced; but when weighed in the balances they will be found wanting.—*Lancet, August* 31, 1861, *p.* 204.

External Use of Glycerine.

The difficulty in inducing diaphoresis in acute dropsy with albuminous urine has led to the trial of many plans of treatment, with more or less success. Besides the use of the ordinary sudorific dreaches, various external remedies have been resorted to. Hot air, hot vapor, and hot water baths have sometimes succeeded, but more frequently failed. I have lately tried the application of glycerine to the surface in some cases of this disease which have been under my care, and the result has been so satisfactory that I am induced to lay it before the profession. I may best explain its mode of use and its effects by giving a case in which it was applied with success.

G. W.———, aged 28, a remarkably strongly built man, with great power of muscle, fair and fresh-colored. Had been accustomed to drink hard for some years. A short time before his admission as an out patient at the Metropolitan Free Hospital (on November 1st), he left off drinking for fourteen days to train for a prize-fight, and having successfully accomplished the object of his ambition he again returned to his old habits. He states that he went to bed on Oct. 29th feeling quite as well as usual, and when he awoke in the morning he found his face and hand very much swollen. He says he "could not see out of his eyes for the swelling." The next day, his body and legs and also his loins became swollen. On first presenting himself at the hospital, his whole body was swollen. His breathing was much oppressed; tongue furred on the right half, the other half being clean. The urine was passed freely in natural quantity. On examination, its color was that of brown sherry, specific gravity 1010; it became perfectly solid on boiling. Pulse 72.

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Nov. 8th: Finding himself no better, and his urine becoming scanty, he consented to come into hospital. The urine still became solid on being heated, and had a specific gravity of 1018. The skin was dry and harsh, as it had been from the first. I put him under the following treatment:—Compound jalap powder, one dram and a half, in the morning. Liquor of acetate of ammonia, half an ounce; tincture of the sesqui-chloride of iron, twenty minims: three times a day. The whole surface of the body and limbs to be sponged with glycerine and water in equal parts, night and morning. The effect of the glycerine was soon developed in a free and gentle perspiration. The dropsy began rapidly to subside, the amount of albumen in the urine to diminish. The skin now feels natural, and performs its functions actively. It is probable that glycerine has a twofold action on the skin both tending to the same end—1st, it softens the cuticle and removes obstructions from the orifices of the sweat-ducts; 2ndly, it possibly acts by inducing the escape of fluid by exosmosis. I have used it in several cases of acute dropsy with albuminuria after scarlatina, with good results. I have not found it to produce any injurious effects in any case.—*Dr. Jones of the Free Metropolitan Hospital in Lancet; British American Journal.*

Treatment of Bubo by Injection.—Dr. Pizzorno strongly recommends the following mode of treating bubo, which he has pursued in more than 500 cases with great advantage and no ill effects: When suppuration cannot be prevented, the bubo should be opened sufficiently only to discharge the pus and to admit the point of a small glass syringe. A solution of corrosive sublimate (two grains to three ounces) is then to be thrown in with force two or three times in succession, and after the sac of the abscess is thus well washed out, a little of the solution is still to be left within it, the aperture being then covered with some shreds of lint and compresses moistened in the solution. Pressure is also to be made with a long and broad bandage. Sometimes at the end of the first twenty-four hours suppuration has ceased, and the external application alone has to be continued. When this is not, the injection has to be repeated every twenty-four hours until the suppuration ceases. Upon an average, about seventeen days are required to obtain a complete cure of the bubo. In indolent bubo, when frictions with extract of cicuta and blue ointment, a few doses of calomel, and compression by bandages do not succeed, the author applies a blister and dresses it with a weak solution of corrosive sublimate.—*Medical Times and Gazette*, from *Omodei's Annali; Pacific Medical and Surgical Journal.*

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Selections.

PERSULPHATE OF IRON IN "BRGHT'S DISEASE."—Before the Buffalo Medical Association for October 1st, as per report in the *Buffalo Midical and Surgical Journal and Reporter*, Prof. White speaks highly of the persulphate of iron in "Bright's disease."

He reports a case that proved rebellious to other remedies, in which this remedy was used with marked benefit. The solution of this remedy was employed in doses of fifteen drops three times daily, at first, and subsequently increased to thirty-drop doses. At the end of three months, Prof. White says:—"He works a part of his time at his trade, and bears exercise without exhaustion. The œdema in the lower extremities is greatly lessened, and the size of the abdomen greatly reduced. Upon testing his urine with heat and nitric acid, no albumen could be detected."

Prof. Rochester also reported a case of the same disease, treated in like manner, with the same happy results.—*Med. and Surg. Reporter.*

OTALGIA.—The *Gazette Medicale de Lyon* recommends in severe earache, when other remedies have failed, equal parts of chloroform and laudanum introduced to the meatus on a piece of cotton. "The first effect produced is a sensation of cold, then there is a numbness, followed by scarcely perceptible pain and refreshing sleep." This is not novel, but good.—*Chicago Med. Jour.*

CHLORATE OF POTASH AGAIN.—Dr. S. H. Smith, of New York, in the *Am. Med. Times*, believes that the greatest value of the Chlorate of Potash is as a prophylactic. Given with *Quinine and aperients*, he has seen it repeatedly stave off attacks of epidemic fevers. So also it is a "big thing" in that state of constitution favoring boils, felons, whitlows and carbuncles. He, moreover, conceives it to have acted miraculously in certain diseases, associated with an unusual lividity and coldness of the lips, extremities, and sometimes tip of the nose, showing an embarrassed capillary circulation, perhaps ascribable to some morbid condition of the circulating fluid itself.

It is evident that Dr. Smith believes that Chlorate of Potash is a power in the medical Israel. He will recover.—*Chicago Med. Jour.*

APPLICATION OF ARSENIC TO CARIOUS TEETH.—G. W. Ellis, M. D., in the *Dental Cosmos*, states that arsenic is now the almost universally adopted medium for the destruction of the dental, and, in skilful hands, is thought to be divested of the many dangers which have been attributed to it. It appears that the most usual practice is to rub up the arsenic with creosote and sulph. morphiæ. The value of the addition of morphia is much debated, but the weight of testimony is in its favor. The amount of arsenic employed varies from the twentieth to the fortieth of a grain, and the duration of the application varies from three to forty-eight hours, depending on the susceptibilities

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and peculiarities of each individual case. Dr. Harris recommends it to be left in "about seven hours, or two hours after the tooth has completely ceased aching."

If, on the removal of the arsenic, the part be still sensitive, the renewal of the application is the practice mostly advocated.—*Chicago Med. Jour.*

Diagnosis of Parotitis and Phlegmon of the Face.—M. Trousseau recommends a method of distinction suggested by M. Archambault. Causing the patient to open the mouth widely so as to expose the mouth of Steno's duct by presure of the parotid, a drop of pus can be expressed if the gland is the part affected. The process seems infallible in differential diagnosis.—*Chicago Med. Jour.*

Pertussis.—Nitric acid is being revived as a remedy for whooping cough. Dr. H. Holmes, M. D., in a paper read before the Middlesex (Mass.) Med. Society (Boston Med. Jour.) recommends the following: ℞ Tr. Cardomomi Comp. ʒ ss; Syrup Simpl., ʒ iiiss., Acid. Nitrici, gtt. xxxij. M.; S. From five drops to one tea-spoonful to be given frequently, according to the age of the patient, and the severity and frequency of the paroxysms.—*Chicago Med. Jour.*

Aconite and Nux Vomica Antidotal to each other.—In the case of a a negro boy who had swallowed a destructive dose of the tincture of aconite and was rapidly sinking in spite of emetics and external irritants, Dr. D. D. Hanson administered three drops of the tincture of nux vomica. In a few minutes the heart's impulse returned with accelerated vigor, and the respirations were correspondingly improved in steadiness and depth. After a repeated dose, twenty minutes later, vigorous emesis followed the tickling of the fauces with a feather. The next morning the patient was fully recovered.—*Boston Med. and Surg. Journal; Cincinnati Lancet and Observer.*

On the Use of Digitalis in Large Doses in the Treatment of Menorrhagia.—A woman who had suffered from menorrhagia for six weeks, entered the Hotel Dieu, as a patient. She was immediately ordered to take ergot of rye, but without any beneficial effect. M. Trousseau then recommended a very strong infusion of digitalis—(eight grammes of the leaves to two hundred grammes of water). This medicine, according to M. Trousseau, ought to be administered in a certain manner; the strong infusion should be given in the dose of a tablespoonful every half-hour. When digitalis is taken in a large dose, warning is given of the danger which it may produce, by a series of symptoms arising from the irritating action of the digitalis on the gastro-intestinal mucous membrane—namely, vomiting, diarrhœa, and pains in the stomach and bowels. As soon as the medicine is absorbed, a second series of poisonous symptoms is observed, as vertigo, disturbance of vision, pain in the head, delirium, stupor, &c. It is necessary to discontinue the medicine as soon as the first set of symptoms is induced. In the case of the patient above alluded to, the digitalis was given for five hours. As soon as the first symptoms of vomiting were observed, the hæmorrahage from the uterus was arrested,

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and did not return. Although the digitalis in this case did not produce any very serious symptoms of poisoning, yet the pupil remained for a long time enormously dilated.—*Gazette des Hopitaux; Pacific Med. and Surg. Jour.*

Difference in the Power of Hearing between the Right and Left Ear.—Prof. Fechner has made a series of experiments on this subject, and has arrived at some rather unexpected conclusions, which are worthy of attention, now that the double stethescope seems to be likely to supersede the old-fashioned single tube. He found that in 103 persons examined, 65 heard better with the left ear than the right, 26 heard the same with each ear, and only 12 better with the right ear than the left. The experiments seem to have been conducted with care, and none of the persons were before being examined at all aware that there was any difference in the power of the two ears. These experiments are also of interest as showing that a slight difference in the sensibility of the two ears should not be considered as pathological.—*Pacific Med. and Surg. Jour.*, from *Poggendorf's Annalen.*

The Epidemic of Erysipelas at Paris.—Both in hospital and civil practice, erysipelas has prevailed in Paris to a vast extent during the last few months, so as to prevent the performance of any but indispensable operations. Of a slight description at first, the epidemic has gradually assumed a graver character, until now it is attended with the most fatal results. Several practitioners and students either in the town or hospitals have fallen victims to it, the best hospitals, such as Lariboisiere, having furnished some of the worst cases. It is probable that an epidemic of this disease of similar extent and intensity has not been witnessed in Paris, nor does it at present exhibit signs of declining. The numerous topical applications which prove of use in ordinary epidemics are now of no avail, nor have any general measures as yet proved more efficacious.—*Med. Times and Gazette.*

During the last two months, erysipelas has prevailed to some extent in this country, at least in San Francisco and Sacramento. Many cases in this city have followed operations, and in Sacramento there was one case which proved rapidly fatal, following a slight wound on the finger; and another case in our practice, in which the application of a sinapism to the throat was apparently the cause.—*Pacific Med. and Surg. Jour.*

The Warmest and Best Clothing.—Most persons suppose that fabrics made of coarse wool are the warmest and most durable. This is a mistaken idea. Owing to the lower prices of coarse wool, fabrics of this material are usually made heavier than those of fine wool, hence their greater thickness deceive persons respecting their qualities for warmth and wear. There is no heat in the wool itself; its property of what is called "warmth" is due to its non-conducting qualities. If we grasp a bar of iron on a frosty morning it produces a disagreeable cold sensation because it is a good conductor of heat, and the warmth of the hand is rapidly carried off by the metal. On the other hand, a piece of woolen cloth, especially if it has a long nap upon it, does not

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feel cold because it is a good non-conductor, and prevents the heat passing rapidly from the hand. Now the warmest fabric for clothing is that which is the best non-conductor; and Count Rumford made a great number of experiments with different materials in order to find out the best. According to his observations, the down of the eider duck, which the Esquimaux use in their clothing, is unrivalled in this respect; and the finer the fabric of woolen cloth used, the more imperfectly did it conduct the heat from the human body. As fine woolen cloth is superior to that of coarse wool as a non-conductor, it is therefore the best for clothing in keeping the body warm during cold weather. We are also positive that cloth made of fine wool equal in thickness to that manufactured from the coarser material will wear much longer. The finest woolen cloth, although dearest at first, is cheapest in the end, because it is more durable and warmer; and according to Liebig, so much heat saved is so much meat gained. It must not be overlooked, however, that there may be a very great difference between what is called "firm cloth" and cloth made of fine wool. Fine wool is our theme; it feels pleasant and soft to the touch, and it has a rich velvety appearance. There has been a great demand recently for coarse wool to be used in the manufacture of common army and other cloth, but every effort should rather be made to obtain plenty of cheap fine wool, because it is the warmest and best for clothing.—*Scientific American; Chem. News.*

Neuralgia.—Dr. Robinson, of New Elizabeth, Ind., recommends the following treatment for idiopathic neuralgia. It consists in general in the use of tonics, of which the mineral, and especially the ferruginous are stated to be most efficacious, but as a general thing these require to be combined with a vegetable anti-periodic remedy, especially in malarial districts. As a specimen some prescriptions are given for hemicrania. ℞ Chinoidini, 24 grains; strychniæ, one grain; pulv. capsici an., 5 grains; make into ten pills, one to be taken before each meal. After using them sufficiently long to break down the paroxysms, they are replaced by the following: ℞ Quevenne's Iron, 60 grains; quinia, 60 grains; extr. hyoscyami, 40 grains; pulv. capsici annui, 20 grains. Make 40 pills; one to be taken after each meal, until completely relieved. —*Cincinnati Lancet*, from *Chicago Examiner; Amer. Drug. Circular and Chem. Gazette.*

Bicarbonate of Potassa in Croup.—Since Dr. Luzsinsky, of Vienna, has recommended the bicarbonate of soda, Dr. Kellogg has succeeded in establishing the claims of the bicarbonate of potassa, used by himself and others for a long time with decided success. After giving an emetic he prescribes a mixture of bicarbonate of potassa, half a dram; fennel water, five ounces; syrup of senega, one ounce. A tablespoonful every half hour. In very severe cases he augments the dose to a grain and a half of the salt every quarter or half hour, and sometimes repeats the emetic.—*Am. Drug. Circular and Gazette.*

Oxalate of Cerium in the Vomiting of Phthisis.—*By Dr. Cholmeley.*—In a case of phthisis pulmonalis, in the first stage, in which there is very ob-

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stinate and persistent vomiting, I have tried the oxalate of cerium with success, however, only so far as this, that the oxalate itself is always kept down, but it does not make the stomach more tolerant of anything else, for every other kind of medicine, and almost all food, is still instantly rejected. I was induced to try the salt in this case by the fact that not long before vomiting came on, the catamenia had entirely and rather suddenly ceased, and it seemed as if the vomiting might be due to uterine irritation, as is the vomiting of pregnancy. The same reason led me to give the oxalate in another case of obstinate and frequent vomiting attending amenorrhœa, and greatly interfering with treatment. In this case it proved a most valuable remedy, always at once stopping the sickness, and enabling the patient to take all necessary medicines and food without discomfort.—*London Med. Times and Gazette; Am. Drug. Circular and Chem. Gazette.*

Subacute Rheumatism.—John Smith, aged fifty two, a shoemaker, intemperate, was in good health until five months ago, when he had a fall injuring his thigh, which was followed by rheumatic pains and loss of use of limbs. In this condition he was admitted to the hospital September 20th, 1861. Gradually his shoulders, arms, and fingers became swollen, and the joints enlarged. Had considerable swelling of the knees about January. His treatment consisted of iodide of potash, ten grains, wine of the root of colchicum, ten drops, three times a day, under which he has gradually improved.

This is now the fourth case of subacute rheumatism I have shown you in which this treatment has proved successful. The colchicum is not beneficial in acute rheumatism; but is an excellent remedy in the subacute form, and in combination with iodide of potash.—(*Srrvice of Dr. Da Costa, Philadelphia Hospital,*) *Med. and Surg. Reporter.*

Spermatorrhœa Succersfully Treated with Aconite.—In the *Cincinnati Medical and Surgical News* for August, Dr. J. J. Kimberlin has an article upon spermatorrhœa, and gives a case illustrating his treatment. He believes spermatorrhœa to be the result of "an excessive sensibility of all the urino-seminal vessels, especially of the prostatic urethra," and directs his treatment accordingly. The following is his prescription:

"Two parts of the solid extract of aconite, and one of hemlock, were broken down with water to the consistency of cream. Of this an unguent was formed by adding lard in sufficient quantity with which the perineum was well anointed, three times per day, for over a week, in conjunction with a regular course of salines to keep the bowels soluble. At the expiration of the time mentioned, my patient returned, much elated with the success of the course of treatment."

This treatment was continued for a month longer, and the doctor says the cure was perfect.—*British American Journal.*

Hospitals in Great Britain.—There are 167 hospitals in Great Britain, as follows: England 76; Scotland, 15; Ireland, 76.

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Pharmacy.

EFFERVESCING CARBONATE OF IRON.

In the last number of the *Chemist and Druggist* we noticed some very well made effervescing Chalybeates. As some of our readers are anxious to know the exact mode of forming these elegant aperients, we insert Dr. T. Skinner's formula for this preparation.

℞ Acid. Tart., ... ℥ iij.
Sod. Bicarb., ... ℥ v.
Ferri Sulphas., ... ʒ x.
Pulv. Sacch. Alb., ... ℥ i. ʒ vi.
Acid. Citric, ... ʒ ij.

First. Mix the sulphate of iron with the sugar, and part of the tartaric acid.

Secondly. Mix the citric acid with the remainder of the tartaric acid, and bicarbonate.

Thirdly. Stir the two mixtures together, and thoroughly unite them by sifting.

Lastly. Put the whole into an open metal vessel in a water bath, and stir until it is well granulated. In these proportions there are ten grains of sulphate of iron in every dram and a half; this will produce, by double decomposition, four grains of pure protocarbonate of iron.

It is also needless to observe that the materials employed should be finely powdered, very dry, and that the preparation should be kept from the air and moisture by being preserved in well-stopped bottles.

We believe that the more frequent employment of remedies of an elegant and unobjectionable form is of more importance than is frequently imagined —a patient often refusing to take nauseous though perhaps important medicines who would readily take the same remedies in a less objectionable form; hence we are always glad to notice any improvement, having for its object the rendering of medicaments less obnoxious to the palate. Under this class of improvements we may rank the two extremely elegant compounds named at the head of this notice; they are white granular solids, rapidly dissolving in water with brisk and lively effervescence, and furnishing clean, transparent, colorless solutions of a really pleasant and tonic taste.

The more simple contains one grain of citrate of quinine to each dram, and the other possesses, in addition, two grains of citrate of iron.

The preparations are obviously very carefully made, and are stated to retain their properties unchanged for any length of time, if kept from access of moisture. To a convalescent, requiring the continued use of either iron or quinine, we can hardly imagine a greater boon than these will prove themselves to be, as, whilst retaining all the potency of the drugs, they are as pleasant as a glass of soda water.—*Chemist and Druggist*, Nov. 15, 1861.

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PHARMACEUTICAL NOTICES.

By Wm. Procter, Jr.

Syrup and Fluid Extract of Seneka.—Many have observed that syrup of seneka, which whilst hot is perfectly transparent, will frequently, on cooling, be cloudy without precipitating any separate substance. The consistence is often much thicker and less mobile from this cause, which is due to the presence of pectin or pectic acid. The transparency of such cloudy syrup of seneka may be restored by the addition of a small quantity of bicarbonate of potassa, with heat; about four grains to the fluid ounce will usually be sufficient. A drachm of bicarbonate is put in a morter with a few drops of water, say a fluidrachm, and triturated till the crystals are entirely broken down; then gradually add a pint of the syrup of seneka and mix them. Without heat the reaction is to slow; the syrup is therefore poured into a capsule and heated until effervescence ceases. This may conveniently be effected without loss from evaporation, by heating the syrup, contained in a bottle which it half fills in water-bath, with occasional agitation of the syrup until effervescence ceases. It is then allowed to cool. If a large quantity is acted upon in an open vessel, care should be taken to avoid loss by evaporation, which will tend to cause crystallization of the syrup if not corrected by adding the lost moisture.

Fluid Extract of Seneka.—That which in the syrup produces only thickening and loss of transparence, occasions sometimes complete gelatinization in the more concentrated fluid extract, especially if it be preserved by sugar. It will be necessary to employ a larger proportion of the alkaline carbonate, varying from two drams to half an ounce for each pint of the fluid extract, proceeding in a similar manner to that for correcting the syrup as above. My friend, Charles Bullock, has tried this remedy for the gelatinized fluid extract with entire success. There is nothing in this addition therapeutically incompatible, yet it is possible that in extemporaneous mixtures chemical incompatibility may occur, but this the apothecary may guard against.—*American Journal of Pharmacy.*

MANUFACTURE OF QUNINE.

M. Clark, suggests the preparation of quinia, by submitting cinchona to ebullition with water containing muriatic or sulphuric acid, then treating the decoction with an alkaline carbonate as long as it forms a precipitate, adding a small quantity of stearic acid, and boiling. The fat acid fuses and floats on the surface; little by little the quinia and cinchona unite with it and form an insoluable soap whilst the precipitate blackens. When cool the stearate solidifies and is removed, and boiled in pure water as long as the water is clouded, after which the stearate is treated with boiling acidulated water, which removes the alkaloids.

The hot solution having been carefully neutralized by an alkali, a brown matter is separated by filtration; when by cooling the whole becoms a magma of

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crystals of sulphate of quinia and cinchona. These are separated by the ordinary process.

M. Clark asserts that the fatty soap contains all the quinia and cinchona of the bark treated. He recommends this process also for opium.—*Journal de Pharmacie; American Journal of Pharmacy.*

ADULTERATION OF CAMPHOR.

According to the *Journal de Pharmacie d' Anvers*, gum camphor is now sometimes met with which is mixed with the artificial (hydrochloric) camphor to a considerable extent. Mr. Dumont gives as a safe re-agent the behaviour of caustic ammonia towards the alcoholic solutions of such camphor.

In a tincture of pure camphor a few drops of ammonia produce a slight precipitate, which redissolves on shaking, while in a solution of hydrochloric camphor, or in a mixture of the two, ammonia gives a flocculent precipitate, which does not redissolve, and which increases in volume in proportion to the amount of such audulteration.—*Druggists' Circular; Amer. Jour. of Pharmacy.*

PAPIER FAYARD ET BLAYN.

Boil 30 parts of garlic with 500 of linseed oil, and strain, then add 60 parts of powdered sugar of lead, 30 parts of yellow ochre, and 15 of red lead, rubbed up with 500 parts oil of turpentine, and bring the mixture on satin paper by means of a flat brush. It is then dried by the stove.—*Ibid.*

TATE'S ANTI-MIASMATIC PILLS.

℞ Chinoidine.....grs. xx.
Comp. Ex. Colocynth.....grs. iij.
Capsicum.....grs. iij.
Pul. Gum Arabic.....grs. iij.
Aloes Soc.....grs. v.

Mix. Form Pill, No. xij.

In ordinary cases of intermittent fever two of these pills should be given every two hours until twelve are taken. In many of these cases they are preferable to quinia, inasmuch as the disease is not liable to return after having been arrested by them.—*Drug. Circular and Chem. Gazette.*

REMEDY FOR NURSING SORE MOUTH.

Dr. G. A. Moody, of Plainville, Connecticut, sends us the following recipe for this troublesome affection:—

℞ Red iodide of mercury.....ʒss.
Iodide of potash.....ʒss.
Pure water.....f℥ij.

Mix. Dose, four drops in a little water, three times a day.

He also uses it as a gargle, taking six drops of the solution to one third of

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a tumbler of water, gargling the mouth or throat with it every three or four hours. He says "almost immediate relief is afforded to the smarting sensation of the throat and mouth." He is indebted for the above to an article in *Wood's Retrospect*, published in New York some years since.—*Med. and Surg. Reporter.*

BEBEERINA IN MENORRHAGIA.

This article, which is the active principle of the Bebeeru tree, which grows in British Guiana, and possesses properties somewhat similar to cinchona, we observe is gaining some celebrity in the treatment of menorrhagia. The formula for its administration is the following:—

℞ Bebeerinæ sulphas,.....grs. xij.
Pulv. cinnamomi,.....grs. xviij.
Pulv. ferri,.....grs. vj.
Mix. Ft. chart. xij.

One of these to be taken every other day during the interval between the menstrual terms. During the flow, especially if it be profuse, the remedy should be given oftner, and in larger doses. As a remedy, in cases of simple uncomplicated menorrhagia, this article posseses merits which are worthy of note.—*Med. and Surg. Reporter.*

PREPARATION OF HYDRATED OXIDE OF IRON FOR THE ABSORPTION OF SULPHUR FROM CERTAIN GASES.

Patented by J. G. Willans, Belfast, Ireland.

According to this invention the brown hæmatite, or other natural form of hydrated oxide of iron, is reduced to fine powder by grinding under mill-stones; the small particles are then separated from the coarser, either by sifting, or by means of currents of air, or water, when a material is obtained admirably adapted for absorbing the sulphuretted hydrogen from foul coal gas and other gaseous mixtures containing it. The second part of the invention relates to the treatment of sundry ferruginous products, such as roasted pyrites, forge cinder, hammer scals, and furnace slags, containing not less than 3° per cent. of iron, which are to be subjected to heat in contact with carbon, or any appropriate deoxidising agent, with the intention of producing a crude kind of metallic iron, and afterwards leaving this exposed to the rusting influence of air and moisture, to obtain a partially oxidised material well calculated to retain the sulphuretted impurities of common coal gas.

This proposal appears likely to be serviceably employed in the preparation of ochrey iron ore, and other forms of hydrated oxide which occur not only in Ireland, but away from coal, and hence comparatively valueless in some parts of England. A mixture of sulphate of iron, lime, and sawdust (really equivalent to hydrated oxide of iron), has formed the subject of more than one patient claim for a similar application. The ochrey ironstone of Oxfordshire has also been employed for the purification of gas.—*Chem. News.*

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Editorial.

ELIXIR PROPYLAMIN.—Different notices have appeared in the journals of a year past, in support of Propylamin as a remedial agent in acute and chronic rheumatism. Dr. R. H. Stabler of Alexandria, an able contributor to the *American Journal of Pharmacy*, states in the March number for 1860 of that journal, that he was induced by the published experience of Dr. Awenarius of St. Petersburg, together with well conducted chemical experiments, to prepare a portion and have the physicians in his place give it a trial, which resulted, he remarks, "in establishing its reputation amongst us as an indispensable remedy."

Owing to the unpleasant odor and taste of it, it has been found objectionable to patients. Mint water has been proposed to overcome this objection, but does not meet the requirements. I have been dispensing it in the form of an Elixir, of late, and have succeeded in disguising both odor and taste, according to the following formula:

℞ Chlor. Propylaminæ ..... grs. clxviii.
Syr. Simplicis ..... ℥ ii.
Curaçoæ Cordial ..... ℥ iii.
Aquæ Distillatæ ..... Oi.

Dissolve the Chloride Propylamin in the distilled water, add the simple syrup, then the Curaçoa, and lastly filter.

Dose, a teaspoonful,—representing one grain of the chloride.

A. J. R.

THE AMERICAN MEDICAL ASSOCIATION.—This Association has done much for the improvement of medical science; and we confidently hope that its anniversary will not be suffered to pass without a meeting of its members and delegates from the Northern States. It is to be hoped the State Medical Societies and Medical Colleges may be represented by their delegates, and an increasing interest be taken in the subject, and made manifest by their punctual attendance. There is no time to be lost in making arrangements, as the time is near at hand when some action should be taken preparatory to such an assembling. There is no reason why a postponement of this Association should be suffered another year. The transition, through which our country is passing, de-

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velopes subjects of increasing interest and paramount importance to the medical profession, and should stimulate its members to make sacrifices, if necessary, to keep up the Association.

As yet, we believe, the time and place of meeting has not been definitely fixed upon. The *American Medical Times*, however, proposes that the Association hold its annual meeting at Chicago, on the first Tuesday of June next; which proposition appears to meet with much favor, and probably will be finally adopted.

From the *Chicago Medical Examiner* for February, we copy the following apposit remarks:—

"We think there has been no time in the history of the country, when our Medical Societies, both local and general, could be more useful than at present. We are glad to see that such State Societies as have recently held their annual meetings, have been well attended. For ourselves, we can say to our brethren elsewhere, that we shall greet them in our goodly city with the greatest pleasure. We trust, the proper notices will be issued by the Secretaries and Committee of Arrangements, without delay."

THE AMERICAN PHARMACEUTICAL ASSOCIATION.—In the *Am. Drug. Circular and Chem. Gazette* for March, we find the following, relative to the annual meeting of this Association for 1862:—

"The distracted state of the country having prevented the last annual meeting of the Association, and St. Louis not being sufficiently central, in the opinion even of the Western members with whom we have corresponded, to get together a sufficient number to constitute a successful meeting, the proposition has been made to hold the meeting for 1862, in Philadelphia.

"There is no city in the Union which offers a better prospect of a large and interesting meeting, and certainly none which would extend a more hearty welcome to the members from all parts of the country, than the metropolis of the Key-Stone State, which has the further merit of being much resorted to for business purposes by the druggists of every section.

"In order that the President may not be at a loss about the wishes of the members, we would suggest that every one who has formed an opinion, either about the time or place of the meeting, should address by letter either the President in New York, or Prof. Procter, Chairman of the Executive Committee, in Philadelphia, or, what would perhaps be preferable, let those who have been in the habit of influencing the action of the Association at its meetings, 'Ventilate' the subject in the next two numbers of the *Druggists' Circular*, the Editor of which has shown himself so willing to promote the progress of Pharmacy and the welfare of the Association.—E. P."

BOUND VOLUMES of the *Journal of Materia Medica* for 1859, 1860, and 1861, will be forwarded for $1 each, postage paid.

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[DOUBLE NUMBER.]

THE

JOURNAL OF MATERIA MEDICA.

DEVOTED TO

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Vol. IV.] APRIL and MAY, 1862. [Nos. 4 & 5.

Alteratives.

BY JOSEPH BATES, M. D.

Podophyllum Peltatum.

This plant belongs to class Polyandria, and to order Monogynia. *Nat. Ord.*—Ranunculi, Juss; Podophylleæ, Lindley; Berberidaceæ, Brown.

Generic Description.—Calyx three-sepalled, minute; corol five to nine-petalled; stigma large, crenate, sessile; berry one-celled, crowned with the stigma, large, many-seeded; columella one-sided.

Specific Description.—Stem terminated with two peltate palmate leaves; flowers single, inserted in the fork formed by the petioles of the leaves. Sometimes the plant is three-leaved, and sometimes the flower is inserted on the side of one of the petioles; grows from one to two feet in height.

In different localities, its popular name is called wild-mandrake, may-apple, mandrake, wild lemon, raccoon-berry, etc. Dr. Parr says "the Americans call it Black-snake root." He also adds: "It bears the hardest winter in an open ground, and is increased by parting the root in August." The root is creeping, very long; it is a little larger than a goose-quill, of a reddish-brown color externally, and whitish internally, brittle, having a slight nauseous smell, and a sweetish taste. The smell of the powder is nearly similay to that of ipecacuanha. The root is perennial,

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furnished with radicles at the joints. It is indigenous, and found extensively diffused throughout the United States, growing luxuriantly in moist shady woods, and in low marshy grounds. It is propagated by its creeping root, and is often found in large patches. Its flowers appear in May and June. Its fruit is ripe in September, at which time the leaves wither and fall. The leaves are said to be poisonous. This is doubtless erroneous; I am well satisfied that the leaves are no more poisonous than any other part of the plant. The fruit has a subacid, sweetish, peculiar taste, is eddible, and slightly aperient, and is very much liked by some persons, but extremely disagreeable to others. The root is the officinal portion, and it is said to be most efficient when collected after the falling of the leaves. This plant was well known to the Indians before the whites settled the country, and was one of their most active purgatives. The active principles of the root are readily taken up by alcohol or ether; water takes up a portion of its activity. The purgative principle of the root is called Podophyllin.

In the *Boston Med. and Surg. Journal*, Vol. 51, p. 512, may be found the following notice, by WM. R. BATES:

"Medical men have been charged with not being alive to the spirit of the age, and it has been said that while continual advancement was made in the other professions, the science of medicine remained stationary. This charge is untrue; the materia medica is constantly increasing in the number of its articles, offering new remedies for the treatment of diseases, and these medicines being duly tested by the touchstone of practice will receive their just place in the pharmacopœia.

"The science of organic chemistry is as yet almost unknown, but already valuable discoveries have been made in separating the 'active principles' of vegetables from the woody fibre, starch, &c., with which they are connected in their natural state.

"The attention of the profession should be directed more to the use of these 'active principles,' which possess so many valuable qualities, and by means of which the physician is enabled to rival the homœopathist in the size of the dose, and also that the stomach need no longer be the physician's laboratory, or be so often offended by the nauseous draught.

"My object in writing is to call the attention of the profession

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to the use of the active principle of the plant Podophylium peltatum. The root of this plant made into a decoction, has for a long time been used in this section of the country in domestic practice, whenever a brisk cathartic was required, and when exhibited in this form it was apt to produce uneasiness in the stomach and bowels. About eighteen months since, I commenced the use of Podophyllin, having for a long time desired an article which would act as an alterative in arousing the secretions in the same manner as mercurials, and yet have none of the unpleasant and disagreeable effects of these medicines. By continued watching of the operations of this medicine, among persons of every age and temperature, and in both sexes, I have come to the conclusion that in Podophyllin we have the desired alterative, without any of the dangerous or disagreeable effects sometimes caused by mercurials.

"I have used Podophyllin with the greatest advantage to the patient in all of those cases where some of the various compounds of mercury were formerly recommended, for the purpose of arousing the action of the great secretory organs, and especially those of the liver. In cases of habitual costiveness, this remedy has acted like a charm, its effects remaining some time after ceasing its use. In one case, where from chronic functional disease of the liver an habitual costiveness was produced, which had formerly been treated by drastic catharties, purges, calomel, blue pill, &c., it yielded to the daily use of one eighth of a grain of Podophyllin for a month, and for six months the patient was entirely exempt from her former difficulties; and these returning again, the same medicine was given, with its former success.

"As an alterative, this medicine excels all of the mercurials; and the following are the forms in which I administer it:—℞. Podophillin, gr. j.; ipecac. pulv., comp. ext. colocynth, āā grs. iv.; syr. acacia gummi, q. s. M. Ft. 8 pills. S. One to be taken every evening. ℞. Podophyllin, gr. j.; ipecac. pulv., grs. v.; hyoscyamous ext., q. s. M. Ft. 20 pills. S. One to be taken every morning and evening. In infants, when the bowels are sluggish and an alterative is indicated, the following prescription is used:—℞. Podophylin, gr. ss.; sach. alb. pulv., ʒ ij. M. Divide into 24 or 32 powders. S. One to be taken at night."

Dr. COPLAND remarks that "there are several medicinal plants

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indigenous to our country, that are well worthy of being named in connection with the treatment of dropsy. The Podophyllum peltatum is an active hydragogue cathartic, producing copious watery discharges, without much griping or other unpleasant effect, and is applicable to the treatment of those cases of dropsy that require brisk purging; combined with the super-tartrate of potassa, it is often of much service in the acute dropsical affections."

Dr. FLEMING speaks highly of the efficacy of Podophyllin in the treatment and cure of syphilis, and has reported cases of its success. Dr. BROWN agrees with Dr. FLEMING, relative to the alterative powers of this agent in curing gonorrhœa and syphilitic affections, and has also given satisfactory reports of his experience in the use of this remedy. Podophyllin has, in some respects, an effect upon the system somewhat analogous to mercury, particularly upon the salivary glands, causing an immoderate flow of saliva, and a condition of the mouth, such as soreness of the gums, etc., so much so that patients frequently insist that calomel must have been mixed with it. I have seen some individuals who invariably had most of the symptoms of mercurial ptyalism, whenever they had taken a dose of Podophyllin.

Dr. LEE regards Podophyllin as one of the most valuable agents recently introduced into the materia medica.

Some authors maintain that the action of Podophyllin is suppressed by the presence of lactic acid in any considerable quantity, while acetic acid does not materially effect it. This subject, however, requires more extended observation, and is open to investigation. It is highly important that the suggestion, relative to the effect of lactic acid upon the activity of this agent, should be definitely settled. It would be safe in all cases, and a good practice, to neutralize the acidity of the stomach prior to administering Podophyllin. Its activity is said to be increased by combining with it chloride of sodium. Leptandrin has been given in conjunction with this article, to modify its cholagogue power, and lessen intestinal irritation.

Dr. HAUGHTON, of Richmond, Indiana, says that "the root of Podophyllum is an active cathartic, with a tendency to act upon the liver, augmenting its secretions. There are cases which will not bear a blue-pill without its specific action, and in those cases

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I found that Podophyllum, combined with Leptandrin, in the proportion of half a grain of the former to three or four grains of the latter, is a most reliable and efficient alterative, producing no nausea, pain, or unpleasant symptoms." In this combination, I presume the author intended Podophyllin, instead of Podophyllum, as a half grain of the crude root would have very little appreciable effect.

The *United States Dispensatory*, in remarking upon the medical properties and uses of Podophyllum, observes that "it is an active and certain cathartic, producing copious liquid discharges, without much griping or other unpleasant effects. In some cases it has given rise to nausea and even vomiting, but the same result is occasionally experienced from every active cathartic. Its operation resembles that of jalap; but it is rather slower, and is thought by some to be more drastic. It is applicable to most inflammatory affections which require brisk purging; and is much employed in various parts of the country, especially combined with calomel, in bilious fevers and hepatic congestions. It is also frequently used in connexion with super-tartrate of potassa in dropsical, rheumatic, and scrofulous complaints. The dose of the powdered root is about twenty grains. In minute doses frequently repeated, Podophyllum is said to diminish the frequency of the pulse, and to relieve cough; and for these effects is sometimes used in hæmoptysis, catarrh, and other pulmonary affections."

EDWARDS and VAVASSEUR, treating upon this plant, say: "As a cathartic, this root is hardly inferior to jalap; it does not seem however to act as promptly, but its action lasts longer. It produces more distressing sickness at the stomach than purgatives generally, and frequently causes emesis. Its powers are heigtened by its union with calomel or super-tartrate of potassa, and griping or sickness at the stomach is often avoided by this combination. It has been highly recommended in cases of intermittent and remittent fevers, in dropsy, and as an anthelmintic it is used with much effect by our Indians."

"The medicinal properties of the Podophyllum peltatum," says Dr. BIGELOW, "are those of a sure and active cathartic, and for this property it deserves a high rank among our indigenous pro-

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ductions; we have hardly any native plant which answers better the common purpose of jalap, aloes, and rhubarb.

JOHN KING, M. D., has favored the profession with a very valuable and elaborate treatise relative to the medicinal properties and employment of Podophyllum. He regards it as one of the most valuable deobstruents in our materia medica. He observes that small doses repeated at short intervals, to fall short of catharsis, will induce ptyalism with many persons. He remarks that "in bilious and typhoid febrile diseases, it is very valuable as a cathartic, or emeto-cathartic, often breaking up the disease at once. Its cathartic operation is apt to be slow, sometimes remaining twenty-four hours, and producing considerable distress, which is, however, more than compensated for, by the thorough and cleansing manner in which it acts. In chronic hepatitis, there is not its superior in the whole range of medicines, being vastly more useful than mercurial agents, arousing the liver to a healthy action, increasing the flow of bile, and keeping up the actions longer than any other agent with which we are acquainted. In alterative doses, it has been found exceedingly valuable in scrofula, syphilitic diseases, rheumatism, and many other forms of chronic disease. In constipation, it acts upon the bowels, without disposing them to subsequent costiveness. It has likewise been found very beneficial in dysmenorrhœa, amenorrhœa, incontinence of urine, worms, and some affections of the bladder. Dose of the powdered root, as a cathartic, from ten to thirty grains; of the tincture, from ten to sixty drops; as a sialagogue and alterative, from three to ten grains of the powder, or from five to twenty drops of the tincture."

Podophyllin, its active principle, varies in color according to its mode of precipitation, being, when precipitated by heat, dark brown; and when by acid, a light brownish-yellow; or greenish-yellow, if by alum. It is insoluble in water, oil of turpentine, dilute nitric acid, and dilute alkalies. It possesses the properties of the root in a superior degree. From four to eight grains operate as an active emetic, with griping, nausea, prostration, and watery stools. Dr. KING says from two to four grains have a drastic cathartic effect, with nausea and griping; and that from one-half a grain to two grains generally operates as an active cathartic, leaving the bowels in a soluble condition; in very small doses, it

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is gently aperient and alterative. Dr. KING also remarks that he makes use of this agent in those cases where mercurials are used by a certain class of practitioners, and finds the result to be vastly in favor of Podophyllin. He maintains that it fulfills all the indications for which mercurials are recommended and used. He says that the action of Podophyllin is very much increased by long trituration, with four or five times its weight in loaf sugar, or sugar of milk (lactin). In doses of half a grain, or a grain, it is one of our most valuable cholagogue cathartics, operating mildly, yet effectually, arousing the whole biliary and digestive apparatus to a normal action, and which is very persistent in its character. It is said to exert a favorable influence on the cutaneous functions, producing and maintaing constant moisture on the skin. Dr. KING says in doses of from one-eighth to one-half of a grain, or rather in sufficient doses not to purge, it acts as a powerful alterative, and will induce ptyalism in some persons, and is very useful in scrofulous and syphilitic diseases, hepatic affections, dysmenorrhœa, rheumatism, gonorrhœa, and recent disease of the prostate. He adds: "It produces a powerful and lasting impression upon the glandular system and secretory organs, unequaled by any other article. It has likewise been found to act as an emmenagogue, and may also be safely and beneficially administered in jaundice, dropsies, dysentery, bilious remittent and intermittent fevers, puerperal fever, typhoid fever, phrenitis, and all glandular enlargements; and in congestive fever it will produce evacuations from the bowels when mercurials and all other agents fail. There is not a better cholagogue preparation known in medicine, than the combination of Podophyllin and Leptandrin. In urethral stricture and recent disease of the prostate, the following pill has cured several cases: Take of Podophyllin and Iridin, of each, four grains; alcoholic extract of Belladonna, five grains; Strychnia, a grain or a grain and a half; conserve of roses, a sufficient quantity to make a pill mass. Divide into twenty pills, of which, one may be given for a dose and repeated three times a day, using in combination with it, active diuretic infusions."

Prof. R. S. NEWTON observes that Podophyllin "administered in one-fourth or half-grain doses, two or three times a day, and continued for several days, produces an entire change of the secretions throughout the system, especially that of the liver, produc-

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ing free and copious bilious discharges." He has used it extensively, alone and in combination with Leptandrin and Cimicifugin.

One writer ascribes to this remedy cholagogue properties greater than are to be found in any one agent in the materia medica. He remarks that its range of application is perhaps more extensive than any other cathartic medicine, except what is claimed by the old school for mercury. He says it is a regulator of all the secretions as far as any one remedy can be; and that it is indicated in all cases, where according to "the books," mercury is recommended, and while in any and every case it will accomplish all the good that the latter remedy can be presumed to achieve, it is entirely free from any of the objections to that article. A combination of one part Podophyllin and ten parts Leptandrin triturated with ten parts of sugar, is recommended as an excellent alterative in dyspepsia, hepatitis, etc. As a remedy in puerperal fever, some consider Podophyllin, as being almost a specific.

The late Prof. T. N. MORROW observes:—"Perhaps no medicine has been introduced to the notice of the medical profession, for the last one hundred years, which promises to be of so much value as the Podophyllin." Prof. M. continues his remarks as follows:—"But in no class of cases has this medicine manifested a higher degree of value, so far as I have been able to observe its effects, than in those marked by strong determination of blood to the brain, producing either congestion or incipient inflammation of that organ. In several cases of this description, in the treatment of which I have witnessed its effects, I was agreeably surprised to find every trace of congestion eradicated by one or two thorough operations of this article. It seemed to exercise a more completely controlling influence over this pathological condition, than any medicine I have ever known used for the same purpose. Of course, in these cases it was used in moderately full doses, and its operations continued for a considerable length of time." In dropsy of the serous cavities, as well as cellular texture of the whole body, the Podophyllin was administered in doses of one half a grain, in conjunction with half a teaspoonful of cream of tartar, every two hours, until it produced a half dozen or more copious watery discharges from the bowels, and repeated in two or three days afterward, till the same effects followed, it soon relieved the patient completely of the dropsical effusion. Prof.

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MORROW concludes his remarks upon Podophyllin in the following manner:—"The results of my experience in the use of this article as a remedial agent, on the whole, are such as to leave no doubt on my mind that it is destined soon to occupy a conspicious place among the most valuable remedies of the materia medica, with a very extended range of application in the treatment of disease. Indeed, it promises to be more than a substitute for the mercurials, in all those cases in which these medicines have proved of any substantial value, without their liability to produce injurious effects on the constitution of patients."

Doubtless mercurials, by improper management, have been the source of much suffering and disease, and have in many instances paved the rugged passage to the grave with untold miseries. CHAPMAN regarded it as probable that the inordinate use of this mineral, may, in various ways, derange the primæ vicæ and liver so as to produce icterose affections; and CHEYNE states that mercurials actually produce jaundice. Enlargement of the liver is a more familiar result. Notwithstanding all the allegations against mercurials, I find many cases where I should do injustice to my own feelings, and probably hazard the life of my patients, to substitute any other alterative. I drop these remarks, in order that I may not be misunderstood, relative to the use of mercurials. The writer uses Podphyllin at present, in many cases where he formerly used mercurials, but not in all. Were the writer to abandon the various mercurial preparations as medicinal agents, he would substitute Podophyllin.

Dr. PROUT compares the habit of taking mercury, for supposed torpor of the liver, to dram drinking. As the stomach accustomed to ardent spirits will scarcely tolerate any weaker beverage, so the liver accustomed to the stimulus of mercury will hardly respond to any other influence. The writer is at present in the habit of prescribing Podophyllin in most of the cases of supposed torpor of the liver. The habit of taking mercury, says Dr. PROUT, occasions biliary attacks or hepatic congestions, renders liable to catching cold on slight exposure, and sometimes is the immediate cause of developing phthisis. The writer would here suggest the habit of taking Podophyllin instead of mercury, and thus avoid the sequences alluded to by Dr. PROUT. He says that a large proportion of the most inveterate dyspeptic and urinary diseases

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which he had seen were distinctly referable to the abuse of mercury.

It would appear that there was absolutely a demand for an alterative, in many diseases, to take the place of mercurials. The author would suggest to the profession the use of Podophyllin as adequate to take that place; and hold mercurials in reserve, for the treatment of some few diseases in which the former remedy might fail to cure. The author is of the opinion that Podophyllin might be used to advantage in three-fourths of the diseases for which mercurials are prescribed.

Iris Versicolor.

(*Blue Flag.*)

Blue flag is found in most parts of the United States, in meadows, swamps, or wet situations. It blossoms in June; has large blue flowers which are very conspicuous, and are familiar to most of our readers; they afford a fine blue infusion, which serves as a test for acids and alkalies.

The Iris tribe of plants is a very extensive one, and many species are used in medicine. In Europe, the *I. fœtidessima*, *I. florentina*, *I. germanica*, *I. pseudo-acorus*, and *I. tuberosa*, have, at various times, been in use in practice. The *florentina* is the only one officinal in this country, although the *pseudo-acorus* is sometimes used here. Of the numerous American species, that most used is the *versicolor*.

The roots of the whole family so far as examined are more or less acrid, and possessed of cathartic and emetic properties. The recent root of the *versicolor* has a nauseous, acrid taste, which is imparted partially to water and perfectly to alcohol; the expressed juice is very acrid, and is often used as a local application. The root is the medicinal portion, and its medicinal activity depends upon the period of its collection, which should be at the time its leaves begin to decay; earlier than this period, and particularly in the spring, or while in flower, its powers are comparatively feeble.

It possesses alterative, cathartic, and diuretic properties, and is highly recommended by some medical writers, while others reject

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it as being unsafe and dangerous. It is probable that it has at times been administered in over doses, and the prejudice alluded to has arisen from this cause; for the same reason we should reject very many valuable articles of the materia medica. Dr. BIGELOW states that he found it very efficacious as a purgative, but apt to produce nausea and prostration of strength. Dr. ANDREWS, of Michigan, uses it as a cathartic frequently, and when combined with cayenne pepper, or ginger, not less easy and effectual in its operation than the ordinary, more active cathartics, and preferable on account of its less disagreeable taste. The experience of others concur in the importance of combining stimulants, as xanthoxylin, camphor, or oil of peppermint, annis or fennel, to overcome all griping tendency. As a cathartic it is said to act on all parts of the canal, but more particularly on the upper portion. It acts as a stimulant to the liver and pancreas. When given either alone or in combination, in quantities insufficient to produce catharsis it is a valuable alterative, exhibiting well marked influence over the entire glandular system.

It increases the salivary flow, and is capable of producing well marked ptyalism, particularly if combined with podophyllum and xanthoxylum; which can be distinguished from that produced by mercury by the absense of its peculiar fetor. Dr. King states that "equal parts of blue flag, podophyllum, and prickly ash bark, given in doses of ten grains every two hours, to fall short of catharsis, will act as a powerful alterative, frequently causing copious salivation without injury to the teeth or gums.

In syphilis, either primary or secondary, it is highly recommended. "In eradicating the syphilitic virus and correcting the diathesis of the system," it is claimed to be not only powerful but positive and certain. It may be employed alone or in combination with other alteratives, as podophyllum, phytolacca, stillingia, cimicifuga, turkey corn, conium, or asclepias incarnata.

In scrofula, particularly those cases accompanied by hepatic derangement, given in small doses alone as an alterative, as well as in combination with other alteratives, is claimed to have few superiors. Also in rheumatism, glandular swellings, and indurations, eruptions of the skin, visceral engorgements and torpor, as of the liver and spleen.

Dr. MCBRIDE prescribed it with great success in dropsy, com-

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bining it with corn snake root, *eryngium yuccefolium*, in proportion of blue flag, two ounces; button snake root, two drams. Mention is also made of its use in a case of hydrothorax, and anasarca; in some cases it may be combined with an equal quantity of the saturated tincture of *euphorbia ipecacuanha;* also with the *apocynum cannabinum*, which is highly recommended in dropsy. A combination of iridin, three grains; leptandrin, six grains; bitartrate potassa, two grains, has been suggested as a valuable hydrogogue cathartic.

The medicinal properties of blue flag are due to an *oil* or *oleo resin* which possesses, in a high degree, the taste and smell of the root, and to which has been given the name of *irisin* or *iridin.* When mixed with an equal portion of sugar of milk, it forms a powder convenient for administration. The preparations of blue flag are the alcoholic pilular extract, fluid extract, and the *oleo resin* or *iridin.* We have often met with this preparation which did not possess its proper characteristics, and an examination satisfied us that it contained a very large proportion of magnesia, and that many of the so-called concentrated preparations contain a large admixture of either the powdered substance, salt or magnesia; or that they may be simply a dried, aqueous or alcoholic extract powdered. It is extremely difficult to always detect this, particularly so for the inexperienced—the tests, however, are simple.

Treat the *iridin* with pure hot alcohol; evaporate the soluble part to the consistence of a syrup; to this add water, which will precipitate the *oleo-resin*, which when dried and weighed will give the quantity of true *iridin.* Treat the insoluble part by water, which will dissolve any sugar of milk or salt it may contain; divide this solution to one portion; add nitrate of silver; if it gives a white precipitate, soluble in ammonia, it is salt. Evaporate the other to dryness; if a white residium having a saccharine taste, it is sugar of milk. If the water leave an insoluble part, it is root or magnesia, or carbonate of magnesia. Treat the insoluble part by muriatic acid; if undissolved it will be found to be root or some vegetable substance; if dissolved it is magnesia, or carbonate of magnesia. Into this solution pour some *phosphate of soda* and *ammonia;* if a white precipitate, it is magnesia; effervescence when the acid is added indicates carbonate of magnesia.

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If an alcoholic extract powdered, it should be all soluble in alcohol; if an hydro-alcoholic extract, a part only should be soluble in alcohol. The quantity of *iridin* can be ascertained by the first process stated; the insoluble part treated by water will dissolve in it, and will be found to contain the gum, sugar, coloring matter, etc. If an aqueous extract, it will be soluble in water, and not in alcohol. Any admixture should be stated upon the bottle of a pure preparation; an amount equal to one-half of the quantity stated should be soluble in hot alcohol.

The alterative dose of Iridin is one half to two grains. Cathartic from two to five grains.

Mental Influence.

By J. B. Somers, M. D., of Somers' Point, N. J.

No therapeutical agent is more potent in its effects than mental influence, and none possesses greater hygienic properties, if rightly directed. When we take into consideration that the mind is the great controlling power by which this machinery of ours is moved; that it is the propelling force which keeps it in motion; and that complete destruction of the physical being, as it were, ensues when this vital force ceases to exist, we are almost persuaded to conclude that the influence which the mind exerts over the body, either in a physiological or pathological state, cannot be too highly estimated by the medical profession. And such is the view we are compelled to take, unless we are willing to be driven into the depths of cold materialism.

This wonderful being, MAN, whose complexity of organism has given rise to so many speculative theories, and of whom so little camparatively is known, may be termed an embodiment of many and varied passions, with a code of laws, moral and physical, for their government, while the mind acts as an executive. If physical laws are broken, the physical being suffers; if the moral, not only the mind, or the executive, but all over which it holds dominant sway.

While we are willing freely to admit that any derangement of the physical man may and does have its effects upon the mind,

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yet we must maintain that which no one will controvert, that a majority of diseases originate primarially in the misuse of our judgment. In a hygienic point of view, if a man maintains the dignity of a man,—I mean by this that being made in the express image of his maker,—he will exercise his discretionary powers in such a manner as to be enabled to shun many of the diseases entailed upon him. It is true that that image was marred by the fall of man from the primitive state; it is likewise true that, to a certain degree, it can be once more attained, and that disease, which was the effect of a broken moral law, may be lessened. "Death has passed upon all men," and there are diseases which, in our present state of knowledge, cannot either be avoided, even by the most cautious, or eradicated by any power of the will, by the most anxious. Such, however, I have not under consideration, but those chiefly arising from the nervous centres.

If a man is swinish enough to be a glutton, he must and will suffer from dyspepsia, dysentery, diarrhœa, and like diseases, arising from want of proper digestion; is he an inebriate, the likelihood is an engorgment of the liver; if his mind is so degraded that he has abandoned all that is pure and lovely, to indulge in sensuality—to allow that mechanism of his to run on to its own distruction—he must suffer its concomitant, a shattered nervous system. Hygienically considered, where shall we find a greater prophylactic than for each man to engrave upon his heart the motto, "know thyself," and exercise over that self, monarchal rule.

In a therapeutical consideration of the subject, that the mind does exert over the body effects, either beneficial or the reverse, no one will pretend to deny; nor will any one fail to discover, upon a visit to any of our well-regulated hospitals for the insane, that the most careful means are provided to draw the patient's attention from the hallucinations that rack his brain. The sanitary effects of music cannot be passed by while on this point; it dissipates gloom, removes madness, and "soothes the savage breast." The reports of those asylums where it has been on trial invariably testify to its value as a therapeutic agent. Many diseases of the ancients were charmed away by it, and we are told that ASCLEPIADES treated sciatica successfully with a trumpet, when the diseased part trembled in sympathy with the sound.

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It may inspire alike within one, devotion or madness, merriment or melancholy, according to the will of the performer. Its effects upon the nervous system, in highly excitable persons, are varied. MOZART, even when young, it is said, "would turn pale at the sound of a trumpet, and become convulsed at a harsh discord," and nothing but a master hand, like that of his own, could calm the storm raging within him. JULIAN, in his earlier life, at the sound of a musical instrument would be attacked by a kind of frenzy, burst into tears, and, if the performer continued, would become convulsed, howl like a dog, and froth, until the sounds ceased. And yet, in each of the above cases, music became their very life; while in the latter, where melody so singularly affected the over-sensitive constitution, it became the means of giving force and strength to his nervous system, and by which he afterward gained a subsistence.

What physician has not seen the enlivening influence which the genial rays of hope produces upon his patient,—how eager he is to put forth every possible exertion that he may be speedily restored to a physiological condition, until the blighting, withering clouds of despair appear in the horizon, when he sinks, thermometer-like, in his chances of recovery! The poet catches a glimpse of its happy effects, and beautifully, aye, truthfully, represents it as being

> "The balm, the life-blood of the soul,—
> It pleases and it lasts."

Love and hatred, anger and fear, confidence and anxiety, alike in their turn have their peculiar effects upon the physiological man. Their action, in a state of health, when pushed to the extreme, like all other potent agents, are capable of giving rise to a long list of diseases and pathological conditions. May not the reverse be effected? May we not, as therapeutists, take a deeper hold of these passions, and make them as effectual in the removal of disease as they are in its production? Methinks that here is an unexplored field for investigation, which might unfold to us as practitioners, upon research, invaluable truths. It is a labyrinth into which the profession has progressed as far as the portals, while the darkness beyond has thus far kept us from a further entrance. Those who enter and traverse the depths and intricate windings of these varied emotions, and witness the action

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of external things upon things that are internal, may experience the dawn of new light to requite them for all their toil and long-continued inquiry.

Many tomes might be written upon this highly interesting subject, and no doubt at no very distant day they will lade the shelves of our libraries.

A NEW OPERATION IN HERNIA.—This was the case of a man far advanced in life, who had just entered the hospital to place himself under surgical treatment for an incarcerated scrotal hernia. Efforts had been made by the usual appliances of warm bath, etherization, etc. to reduce it, but without avail. There were none of the extreme symptoms usually present in strangulated hernia, and the diagnosis was therefore made of incarcerated hernia with stricture at the external abdominal ring. An operation was decided upon, and the lecturer took occasion in his clinical remarks to speak of an entirely new operation, of which he believed he was the originator, and the only surgeon who had performed it. It was the division of the stricture by subcutaneous incision, on essentially the same principle as that for division of the tendo-Achillis or the soleus muscle, for the cure of talipes. He had performed this operation in several instances and with the most satisfactory results, curing the patient in much less time than is required by the usual operation, in some instances requiring the patient to lay by only a day. But it is only applicable to those cases where the stricture is at the external ring, and this should always be borne in mind. This case being one of those in which this operaton was applicable, it was performed in the following manner: A grooved instrument was first introduced some distance below the stricture, passed under the skin and fascia, and into the external ring, so as to raise it upon its point; the director being kept entirely outside of the sac. A common bistoury (though that instrument is too much bent at the point to be an appropriate one) was then *held firmly* with its back upon the grooved director, and then raised up, so that its point should pass into the groove of the director through the integuments, just below the stricture. By rocking the handle of the bistoury backward, the point slid along the groove to the seat of the stricture, dividing it. Great care is necessary to avoid wounding the bowel, which lies very close to the knife, while if properly performed it is less dangerous than the ordinary operation. The hernia was then readily reduced, and a bandage and compress applied to prevent its return. The operation was neatly and quickly performed, and the case is at this date progressing finely.—(*Service of Dr. Pancoast, Pennsylvania Hospital,*) *Med. and Surg. Reporter.*

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[From Braithwaite's Retrospect, part 44.]

On Typhus Fever.

By Dr. Bell, Physician and Clinical Lecturer, Glasgow Royal Infirmary.

[Dr. Bell, in the series of papers of which the following extract is the conclusion, endeavours to prove that the typhus and typhoid forms of the disease are identical as to cause; that is, they both come from the same morbid poison. The doctrine which prevails as to the cause of fever (namely, that a morbid poison is absorbed into the system) is not of the slightest value in the treatment of the case. Dr. B. says:]

With regard to the theory of Liebig, that this morbid poison acts as a ferment, I beg to state that it is an hypothesis which is totally unsupported by a single apposite fact, but, on the contrary, is opposed to well-astablished principles. 'For example, if fermentation, or any process analogous to it, should be set up in the blood, such a process could never come to an end during life, in consequence of the everchanging character of the blood; the position of this fluid being perfectly dissimilar to that of the fixed quantity of saccharine fluid in the brewer's vat. Even here let a stream of this fluid be constantly escaping from the vessel, and a new portion be as constantly added to it—why, fermentation would never cease so long as these changes were in operation. This is precisely the case regarding the blood in the blood-vessels, and it appears to me perfectly inexplicable how that, with this *fact* so prominently patent to all, the theory of the distinguished chemist should have been entertained for a single moment by physicians; and it is still more astonishing that the theory should have had the effect of changing the nomenclature of the whole class of diseases arising from morbid poisons. The term *Zymotic* is a standing reproach to the medical profession, because it shows how easily we have been captivated by a mere theory, and thereby so blinded as to overlook the well-established laws and facts connected with the process of fermentation. But, apart from considerations regarding the truth of this hypothesis, even supposing it to be correct, let me ask what advantage does it confer in the treatment of the disease? Does it suggest the shadow of an idea as to the management of a single case, or the removal of a single pathological condition which exists? Assuredly not. On the contrary, the adoption of this zymotic theory positively may do much harm; it tends to paralyze all investigation into the pathological states which actually occur. The notion that a process of fermentation must *be completed* leads the practitioner to let the disease run its course, without an effort to ward off or remove those lesions, both of function and texture, from which death results. We have seen that death in fever very seldom, if ever, arises from mere functional disturbance; but invariably, or very nearly so, from actual structural changes—viz., congestion or exudation into the brain, softening and degeneration of the muscular tissue of the heart, ulceration, and many other associated lesions
intestines, or from serious disease of the pulmonary organs. Let me qu

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how fermentation produces such morbid results in solid tissues? As practical physicians we must discard all theory in the treatment of fever as a mere "will o' the wisp" which will lead us astray. We must base our treatment on the knowledge which we obtain in our post-mortem examinations, combined with careful clinical observations made during life. The facts so obtained must be our sole guide, and we must never neglect their valuable instruction. They teach us the following important lessons:—1st. That typhus produces an effect upon the whole frame; that the muscular system, the brain and nervous system, the circulatory system, the digestive or nutritive system, and the respiratory system, are all more or less deranged. 2nd. Besides this, observation teaches us that persons attacked by typhus are not uniformly influenced. 3rd. We see that all the different functions or systems are not uniformly attacked with equal severity, but that, in some cases, and during some epidemics, one series of lesions are more frequent or more severe than in others; that whilst, as a general law, disease of the mucous membrane of the intestines is the usual pathological manifestation of the disease, yet diseases of other organs and other tissues frequently supervene, and prove destructive to life.

Let me next point out very shortly the practical value of these clinical facts in the treatment of typhus:—1st. The fact that typhus produces an effect on the whole system, leads us to direct attention to the condition of every organ in the body. The muscular system becomes impaired; we therefore must take care to prevent exertion; we should confine the patient to bed; cause him at an early period to use the bed-pan and the urinal. Though he may be perfectly able to get up to perform these necessary evacuations, yet as the time will come when he will be unfit to do so, it is a good plan to accustom him to the use of these utensils whilst he has sense to guide him; and besides this, when care is taken to preserve the patient's strength in the early stages of the disease, the subsequent prostration will be modified.

2nd. The knowledge that the digestive system is impaired points out the necessity of great attention being devoted to the character of the food and drink, so as to give the patient aliment best calculated to undergo easy digestion. Again, the almost invariable implication of the mucous membrane of the small intestines in the disease, demands that every care should be taken to avoid the exhibition of any article of food or medicine which is likely to produce irritation of the alimentary canal. The knowledge of the existence of this intestinal lesion also guides us to the early employment of means calculated either to modify the extent of its development or remove its effect.

3rd. The fact that the brain is more or less affected points out to us the necessity of taking steps to prevent all causes of excitement. The patient should not be annoyed with business matters; there should be no conversation allowed in the sick-room calculated to excite his mind; the head should be shaved and kept cool by cold applications; the bed-chamber should be kept quiet, and somewhat darkened. Those symptoms to which I have referred as

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indications of severe cerebral disturbance should be carefully attended to—such as sleeplessness, subsultus, cerebral breathing; because it is only at the earliest stages of these complications that we can hope to secure success from treatment.

4th. The knowledge that the respiratory system is also affected in fever, leads us to adopt measures to maintain a constant supply of pure air in the patient's apartment, avoiding all currents, and cautions us to make a careful examination of the chest at every visit.

5th. The fact that the heart becomes diseased in fever instructs us to make it a principal point in our attendance to ascertain frequently the state of its impulse and sounds, so as to be able to avail ourselves of this only safe key to the administration of stimulants.

6th. The evacuations must also receive a careful attention. The peculiar loose stool is most significant; and the important duty of attending to the state of the bladder must never be overlooked. These are points which should never be left to the nurse. The practitioner must always institute a personal examination.

But the clinical fact, that fever affects the whole system is not of greater practical value than the other fact, that these different systems are neither equally nor uniformly disordered. The knowledge of this important circumstance leads us to examine every case with the greatest care, so as to be able to detect at the very earliest moment any tendency to the undue disturbance of any particular function or organ.

These facts instruct us to watch carefully, not only the peculiar manifestations in each individual attacked with fever, but also the tendencies which are exhibited in different epidemics to affect some organs more than others.

Whilst we know that, as a general law, the fever poison impairs the whole system, and that it produces its local manifestations on the mucous membrane of the small intestines, we also know that it attacks other tissues and organs secondarily, and that these secondary lesions are by no means either constant or of uniform intensity, but that at the same time they are frequently much more severe than the primary intestinal ones, and often prove more fatal.

It must follow from these considerations, that fever cannot be correctly treated by any *routine practice;* on the contrary, it is perfectly clear that whilst every attention must be given to the usual anatomical lesion in every case, yet each individual patient must be treated according to the character of his constitution, and the nature and extent of the various secondary complications to which I have directed attention in this series of contributions—papers which I regret to say abound with many imperfections. The only apology which I can plead is, that they have been written at considerable intervals, amidst the usual interruptions of professional life.

But whatever faults may be detected, I beg to remark that I have endeavored to place before my readers the result of nearly twenty-five years' experience of a disease in which I have always taken a deep interest—a disease which I have had ample opportunities of studying under all circumstances, viz.,

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in the rural district, in the manufacturing and mining village, in the overcrowded and densely populated city, in the private dwelling, and in the public hospital; in its sporadic forms, and in its epidemic outbreaks.—*Glasgow Med. Jour.*, *April* 6, 1861, *p.* 57.

Sanitary Science in the Camp.

BEING THE CONCLUSIONS OF THE COMMISSION APPOINTED BY THE BRITISH GOVERNMENT TO INQUIRE INTO THE SANITARY CONDITION OF THE ARMY IN THE CRIMEA.

By GEORGE W. WILDE, M. D.

Although it has been my fortune to spend a considerable portion of my professional life abroad, I still take a deep interest in the political affairs of my native country, and would gladly add whatever of influence or power I may possess to sustain a government, the wisest and best ever created, in its efforts to maintain its supremacy. That the Federal Government will have an army of any dimensions which it may require, I do not doubt; nor do I doubt the result of the war. The old flag—the stars and stripes—will long continue to float an emblem of a united and free government; not only over every inch of our national domain, but in every harbor of the civilized world.

But the question of vital interest with me is, will there not be an immense and needless sacrifice of life from preventable diseases in an army so quickly collected from among the people, and so unaccustomed to the habits and pursuits of the soldier's life? I am glad to learn that this subject has already engaged your attention, and that measures have been taken by government to remedy these evils.

My attention has been repeatedly called to the sanitary condition of troops in my travels on the continent and in the East; and my observations have given me the liveliest apprehensions in regard to the health of the vast army now assembled along the borders of the Southern States. Unless the highest degree of intelligence in matters relating to the management of troops in camp, and in the field, is possessed by the medical staff, the disasters by sickness are more to be apprehended than reverses on the battle-field; as American physicians have had little actual experience in military life, and as the medical literature in military surgery has to be obtained, for the most part, from abroad.

Yet, it has occurred to me, that there is a large fund of facts relating to the hygiene of armies contained in public documents, and hence quite inaccessible —at least to the majority of medical men. The record of many of these investigations are rich in the fruits of sanitary science applied to arms. I believe I cannot do my professional brethren at home, who are now engaged in their country's service, a better service than by giving at some length, and in detail, except where condensation is possible, the results of some of these official inquiries.

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The following are the conclusions of the Sanitary Commission sent to the Crimea by the British government, to inquire into the sanitary condition of the troops. They will be seen to embrace the most important facts relating to the hygiene of camps, and are the result of a series of long and laborious observations:

PRACTICAL CONCLUSIONS RESPECTING THE CAMP.

I. That by far the greater part of the disease and mortality existing in the camp, when the commission arrived in the Crimea, was due to zymotic maladies, such as cholera, fever, diarrhœa, and dysentery.

That besides the effects of topographical and climatic peculiarities connected with the occupation, and making allowance for the predisposing influence of other conditions, to which the troops had been exposed, the prevalence of zymotic maladies was obviously connected with local favoring causes, essentially the same in kind as those observed in civil life, especially in rural districts, namely:

Damp.

Impure Air.

(Although in a minor degree) Impure Water.

II. Attacks of zymotic disease were observed to be connected with the three following sources of dampness:

A wet subsoil; a retentive surface soil; confined locality.

1. Of these three conditions, *a wet subsoil* occasioned the largest proportional amount of sickness.

The experience of the 79th Regiment, and that of the 31st and Royal Artillery, who were successively camped on the same ground, below Marine Heights, proves that one of the worst sites for a camp is that in which a thin bed of porous material rests upon an impervious bed beneath, which retains the water, and keeps the subsoil charged with it, while the surface may afford little or no indication of the fact.

Dangerous sites of this kind were often marked by a greener or more vigorous vegetation than that of the surrounding district, or by water-springs coming to the surface, or by evening fogs setting over them sooner than over the adjacent country.

Before selecting positions for camps in unknown grounds, it would be very advisable to dig trial holes a few feet deep, to ascertain what is the condition of the subsoil drainage, and not risk the health of the men in camping on ground in which these trial holes show the presence of water near the surface.

Should it be necessary, for military reasons, to hold a position on a wet subsoil, the whole should, if practicable, be thoroughly drained by deep trenches, and if there be a hillside or water-shed above the ground, the suface-water from it should be turned aside from the site by deep, catch-water drains, as was done with the camp of the Highland Division at Kamara.

If the position be such that deep trenching and draining cannot be carried out, it is in the highest degree probable that if held for any length of time, it will be a considerable sacrifice of the force.

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2. *The retentive character of clay surface soils*, and the difficulty of draining such soils, render it advisable to avoid them as camping-grounds, when it is possible to do so.

Wet clay soils keep the air near the ground damp and cold, and they affect the atmosphere of tents and huts in a similar manner. There was sufficient proof of their injurious effects on the health of the troops in the Crimea.

Where such soils must be occupied, for military reasons, the defects in the natural drainage should be remedied, as far as practicable, by trenching the ground, and by trenching the site of every hut and tent separately, connecting the hut and tent drains with the larger trenches. In this way, not only are the sites and the vicinity of the huts and tents kept comparatively dry, but the surface water is more readily removed, the exhalations from the damp soil diminished, and the air purified. The experience of the army in the Crimea showed the very beneficial effects of this surface drainage and trenching on the health of the troops.

3. *Dampness of the air, arising from the nature of the locality*, proceeds from the topographical peculiarities of the ground preventing a free circulation of the air, and the atmosphere becoming stagnant, and charged with moisture from the ground. The vally of Karani above Kadikoi afforded an illustration of this, in certain states of the weather.

It was observed in other parts of the seat of war in the East, that damp white mists, settling in valleys or hollows occupied by troops, had been the precursors of epidemic diseases, especially of cholera. All valleys are at times exposed to similar occurrences, especially such as contain stagnant lakes. An unhealthy and stagnant state of the air is sometimes increased by brushwood or trees.

There is often no escape from epidemic sickness occurring among troops from occupations of such positions; they should, therefore, be avoided or abandoned.

III. The evils resulting from these local causes of dampness were not unfrequently aggravated by the manner of pitching tents and erecting huts. Want of due preparation of the ground and defective drainage of the site, often led to a damp state of the air within huts or tents, and induced a tendency to fevers.

Deep trenching round the tent-site, as already mentioned, is the best remedy, and in case of huts, the site should be isolated from the surrounding ground, and the area to be occupied by the hut, drained by a trench dug round it at least a foot below the level of the floor.

If it be not practicable to drain the subsoil, and if the position must be held, adequate provision should be made with any materials at hand for raising the beds of the men above the ground.

Huts should never be banked up with earth against the wood. The experience in the Crimea has shown that it is a dangerous practice, for it used to be a common cause for fevers. An interior lining, even of old newspapers,

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affords a much better, and at the same time a perfectly safe protection from draughts.

The flooring of huts should be occasionally raised, the surface of the face of the ground below cleaned, and quicklime and charcoal strewed over it.

For hospital huts, an interior lining of boards, or building a rough rubble stone wall outside, as was done in many of the regimental hospitals, affords the requisite protection from weather, and from sun heat.

IV. The camp before Sebastopol was, generally, remarkably clean when first visited; but there were in certain situations sources of atmospheric impurity from putrescent organic effluvia, likely to influence injuriously the health of the troops. The chief of these were:

Picketing-grounds, and manure heaps.

One or two slaughtering-places, and latterly the large cattle depot and slaughtering-places at Kadikoi.

The graveyard and putrid marsh near Balaklava.

Latrines kept too long open, and exposing too large a surface.

When an army can shift its ground at will, danger to health from similar evils can always be avoided by doing so.

When, on the other hand, an army is tied to its position for a length of time, the camp becomes a town, and is subject to all the sanitary defects of towns, as these existed before the introduction of the first great step that was taken for improving the public health, namely, the introduction of paving.

Picketing of horses saturates the ground they occupy with organic matter. In like manner, accumulations of manure, if allowed to remain, saturate the ground they cover. Filth of any kind is washed into the ground by the rains, or trodden into by the steps of men and animals, and must necessarily give off impure emanations under the joint action of sun, heat and moisture.

To avoid the injurious consequences likely to arise from these circumstances, it is indispensably necessary to observe the most scrupulous cleanliness over the whole surface and vicinity of a camp.

Bones and refuse of food can be most easily disposed of by burial.

Stable litter and all inflammable refuse should be carefully burned. The usual method of forming heaps of litter and firing it, is imperfect. Before being fired, it should always be opened up, to admit the air to dry it, and to expedite the combustion. Manure heaps burn with difficulty, if left on the ground for any length of time before they are fired.

Carcases of animals and offal should be buried to a sufficient depth below the surface. Three feet is enough under ordinary circumstances. Refuse charcoal dust thrown over tainted ground will assist in deodorizing it, or if that be not obtainable, the burning of stable litter on the spot will furnish sufficient charcoal for the purpose.

Latrines should be made narrow and deep; a quantity of earth should be thrown into them each day, until they are filled within two feet of the surface, after which the latrine should be filled up, and another dug.

When an army requires to occupy the same surface of ground for years, it

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would be unsafe to bury the refuse in the ground, because eventually the soil would become saturated with organic matter, and dangerous to health.

In such a case, the construction of furnaces to consume every organic product of the camp, is far the best and safest proceeding. Speedy collection, removal, and destruction by fire of all such refuse matters obviates any risk of danger from them.

V. *Atmospheric impurities arising from overcrowding and defective ventilation of tents and huts*, were a frequent predisposing cause of zymotic disease.

Were it practicable in warfare to diminish materially the number of men sleeping in tents, it would be advisable to do so.

But considering the limited transport at the command of an army in the field, the injurious consequences of overcrowding may, to a considerable extent, be obviated by a free ventilation of huts, and by improving the construction of tents and marquees, by introducing effectual means of ventilation round the top of the poles.

In the case of huts, ridge ventilation is the most efficient.

Lime-washing huts inside, especially hospital huts, purifies the air; lime-washing of huts outside protects them, to a certain extent, from the intense sun's rays, and keeps them cooler within.

The usual effects of striking tents and shifting ground is an excellent means of avoiding the effects of saturation of the earth by emanations proceeding from the breath and bodies of the men.

VI. The condition in which the water was drawn for use in the camp was likely, especially during the prevalence of cholera, to aggravate the severity of the disease, although not to a great degree.

It is always desirable that water for drinking and cooking purposes should be as nearly as possible destitute of color, taste, or smell. Anything that interferes with these three natural tests is more or less injurious to health; but marsh water, however apparently pure, is not wholesome.

All engineering works for supplying camps with water should comprehend—

The selection of the purest obtainable source.

The delivering the water for use as pure as it is at its source.

If it be necessary to pound the water, the tanks should be covered.

Water should, if practicable at all, never be drawn by dipping, if it be rendered muddy in the act of being so drawn.

If a source of water of sufficient purity be not obtainable, the water should be filtered. A filter may be made with sorted gravel, clean sand, and charcoal.

Every trough for supplying horses should have a separate inlet and overflow.

GENERAL CONCLUSIONS FROM THE WHOLE EXPERIENCE.

I. That as scurvy, and the forms of disease connected with it, almost disappeared from the army under the influence of improved diet, &c., so, in like manner, zymotic diseases, the destructive effects of which mainly depend on

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breathing a humid, tainted atmosphere, declined on the carrying out of suitable sanitary works and measures.

II. That men just arrived in a new country are especially liable to suffer from prevailing zymotic maladies. That any given number of reinforcements will not compensate to the service for the loss of the same number of the original force from these diseases, and hence the necessity for effective sanitary precautions is doubly imperative, whether as regards the abatement of local favoring conditions, or the discovery and immediate treatment of the premonitary stages.

III. As the result of their whole experience, the Commissioners beg to express their opinion, that, inasmuch as the neglect of military hygiene, whether as regards the soldier personally, or the sanitary condition of camps, barracks, and hospitals, has hitherto, in all countries, climates, and seasons, been the cause of the largest amount of loss in armies, the whole subject, closely connected as it is with the physical efficiency of Her Majesty's forces, demands in future a practical development commensurate with its importance to the public service.—*American Med. Times; Pacific Med. and Surg. Jour.*

Opium in Large Doses, and Inhalation of Chloroform in Idiopathic Tetanus.—According to the results of experience, opium is still the most efficacious remedy in the treatment of idiopathic tetanus, and its use may be continued with safety for a long period. Two cases which occurred in the practice of M. Grisolle appear to leave no doubt upon this point; and one of the cases presents this peculiarity, that it shows how much superior opium is to inhalations of chloroform, to which latter great efficacy was at first attributed. The fact is, that although the inhalations of chloroform suspend for a short period the symptoms of tetanus, they do not remove them altogether, and with the elimination of the chloroform the disease resumes its primitive character and pursues its course. The two cases recorded were those of a man and woman, both of whom, without any appreciable cause, were attacked with tetanus. In the first, which was that of the man, inhalations of chloroform were repeatedly employed, with temporary relief; but as soon as the effects of the anæsthetic passed away, the tetanic convulsions re-appeared. At last, opium was given in the dose of five centigrammes every hour (a centigramme is .1543 of a grain); and after some days of this treatment, during which a large quantity of opium was taken by the patient, the tetanic symptoms disappeared, and the patient completely recovered. In the other case, that of the woman, the opiate treatment was pursued from the first, the bowels, however, being relieved by castor oil and purgative injections, and after persevering in this treatment for some days this patient was also cured.—*Bulletin Gen. de Therap; Pacific Medical and Surgical Journal.*

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[From the Boston Medical and Surgical Journal.]

Veratrum Viride.

By Samuel W. Abbott, M. D., of Woburn.

Had the question been asked of the medical profession of New England, five or six years since, "What is the most reliable depressant in our Materia Medica?" I have no doubt the answer would have been from at least nine tenths of the profession—*Antimony*. But, let the same question now be put to the same number of men, and I believe the proportion in favor of such an answer would be largely diminished. If there is any one article that would turn the scale against it, that article is Veratrum Viride.

Our knowledge of the therapeutical value of any drug is obtained, not by observing its effect in any individual case, but by a careful comparison of its effects in a large number of cases. Such has been the fact in regard to the drug in question, and our knowledge of its action is due in a great measure to the care which has been taken by one of the District Medical Societies of this State, in collecting facts, not from the experience of any one man, but from a multitude of men, and a multidude of cases, not only in this State, but throughout the country. The evidence of so large a number of intelligent physicians upon one subject, cannot be lightly disregarded.

I shall in this paper give—

First. A description of the plant.

Secondly. An account of its effects on the system.

Thirdly. Its therapeutical value.

I.—Description of the Plant.

The Veratrum viride (American hellebore, poke root, &c.) is found in the natural order of Melanthaceæ, the same order which contains, also, colchicum, cevadilla, and veratrum album, all of medicinal value. It is a stout, tall, and leafy plant, with a simple stem, growing three or four feet high. The leaves are oval in shape, broad, acuminate, strongly parallel-veined, and sheathing at the base, the lower being ten to twelve inches in length. The flowers are of a yellowish-green, nearly of the collor of the leaves, very numerous, and growing in long racemes, each of which is furnished with a bract. They emit a somewhat disagreeable narcotic odor. I have also noticed that where the plants grow abundantly, the flowering specimens are very few in number; I should think not more than one in ten of the whole number.

It is a coarse-looking plant, and is very common in meadows and woods, invariably near some running streamlet. It grows abundantly in all parts of the United States. In New England, it springs up early in April, and blossoms in June or July.

The part employed in medicine is the root, which is stout and thick, premorse at the base, and gives out a great number of radicles. In this respect it very much resembles the Dracontium (skunk cabbage), and as the latter

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grows in nearly the same localities with the veratrum, and springs up at the same time of the year, might be mistaken for it by a careless observer. But the fleshy spadix enclosed in its spathe, the purplish color, together with the extremely fœtid odor of the dracontium, readily serve to distinguish it. Its root, also, is much larger, and its radicles coarser than those of the veratrum, although resembling them in form and color.*

Question of identity with V. album.—In the second volume of Dr. Bigelow's *Medical Botany* may be found an excellent representation of the veratrum viride, and in the fourth volume of Woodville's *Medical Botany* (London, 4to.) may also be seen a similar illustration of the V. album. From the close resemblance of the two figures in their essential points, it occurred to me that the two species might be identical, and that the discrepancies in regard to their therapeutical effects may be due to inaccuracies of observation in regard to the latter. All the descriptions which we have of V. album are vague, and indefinite in their details.

Comparative strength of the Seeds.—Knowing that, in the case of another medicinal plant of this order (colchicum), the seeds of the plant contain its active principle as abundantly as the root, and in certain other plants (*e. g.* stramonium,) even to a greater amount, I was curious to know if such were the fact in regard to V. viride. I therefore gathered a quantity of them, by shaking the flowering plants and collecting the falling seeds, late in autumn. These seeds were already quite dry, and taking a quantity of them sufficient to make a pint of tincture of the same strength as that adopted for the root (four ounces to one pint of diluted alcohol), I prepared the tincture in exactly the same manner employed in making that of the root, viz., by maceration and displacement. I took this tincture on three different occasions, to note its effect; *at first*, in about the same doses and with the same frequency observed in administering the tincture of the root (five to six drops every two hours). *Result, after the fourth dose.*—Scarcely any diminution of the pulse. *Second trial.*—Increased the dose to ten drops. Pulse diminished about ten beats per minute. *Third trial.*—Increased the dose to twenty drops, and took it once an hour. Pulse diminished from 75 per minute (its average rate when sitting quietly in my chair), to 58—59, and no nausea or other marked symptoms induced. I came to the conclusion that this tincture of the seeds, although by no means inert, could be of but little value compared with that made from the root. I had learned a negative fact.

Two other physical properties of this plant are worth noticing here—its taste, which is acrid, bitter, unpleasant, extending to the fauces, and persisting for a long time; also, its great sternutatory power, which I have often experienced when pulverizing the drug in a mortar, or standing near the mill in which it was being ground. The fit of sneezing occasioned was violent, and often lasted five to ten minutes without cessation.

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* For an accurate illustration of the V. viride, with its flower, seed-capsule and root, see Am. Jour. Med. Sciences, Oct., 1861, p. 397.

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Time of Gathering.—The few authorities which have treated of this plant, state that it is most effectual in its action when gathered in the autumn. But, that which was collected a few years since under the supervision of the Middlesex East District Medical Society, was dug both in the spring and fall, and no perceptible difference was observed in the tincture prepared from either collection. The most convenient time, certainly, is the spring, for it is then found much more readily than in the autumn.

The part employed is the root, which may be easily dug in April or May, and washed in the stream near which it is invariably found. The larger roots should be quartered, or sliced, to allow them to dry more readily. The process of drying may be performed by artificial heat, or by the sun. The quickest and most convenient mode I have yet seen is that employed by the Medical Society above alluded to, viz.: by taking an empty barrel, knocking out both heads, inserting a seive near one end, filling nearly full with the fresh root, and placing the whole over the register of a common house-furnace, allowing the warm air to pass through it for a few hours. When thoroughly dry, it may be easily pulverized, by mill or mortar, and may then be used in the form of powder. But the fluid preparations are more generally used at present. They are the fluid extract and the tincture. The latter is perhaps the more reliable, and may be easily made by macerating the coarsely-powdered root in dilute alcohol, in the proportion of four ounces of the former to one pint of the latter, putting the whole into a displacement apparatus, and allowing the tincture to run off to the required amount; it is then ready for use.

A solid extract is also made by evaporating an infusion at a low temperature. I should think a wine of veratrum might also be made useful.

II.—Effects upon the System.

That veratrum viride is a decided sedative, there can be no doubt. But is it a nervous, or an arterial, sedative? By some writers it has been classified under the nervous division, by others under the arterial, and it seems to me that both are in some degree correct. The former, those who class it with the nervous sedatives, seem to look more thoroughly into the primary action of the drug; and the latter, overlooking this point, appear to regard that action which is most evident to the senses. Dr. Wood, in his treatise on *Therapeutics*, says that arterial sedatives directly change the character of the blood, as is the case with antimony. Nervous sedatives, on the contrary, by a direct influence, reduce nervous power, and also depress the circulation. Now it appears most probable from analogy, that this is just the character of veratrum viride, which comes in contact with the nervous centres, so that their action in some way (we know not how) depresses that of the heart, without in the least degree devitalizing the blood itself.

The characteristics of its action are well marked. The *first* phenomenon noticed after the system has come under its influence, is a reduction in the frequency of the pulse. *Secondly*, some diminution in the frequency of the

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respiration. *Thirdly*, under a large or frequent dose, a sense of faintness or vertigo ensues, with nausea, vomiting, and general prostration. *Fourthly*, the secretions are somewhat stimulated.

1. *Effect on the Circulation.*—It is probable that veratrum viride begins to be absorbed as soon as taken; but when administered in the usual dose of five to eight drops, every two or three hours, the system is not fully brought under its influence until after the second or third dose. It is also rapidly eliminated, its effects passing away in a few hours. The effect on the pulse is very marked, causing it to fall in a few hours from 80 to 40 or 50 per minute when in health, and in high arterial excitement from 140 or 150 down to 60 or 70, more than one half. The effect is less marked in health than in disease. In this way all, and even more than can possibly be said in favor of the lancet, is safely effected by means of the veratrum. This diminutive, though powerful weapon, the lancet, seems already to have fallen into disuse with very many. Observation confirms this, as well as the little volume, lately distributed among our class, by the kindness of its author.

Bloodletting accomplishes its end in inflammatory diseases, *first*, in a mechanical manner, by lessening the force of the current of blood, thus guarding against the danger of its too frequent and forcible impulse on the seat of inflammation; and, *secondly*, by its sedative influence on the nervous system, whose excitability is increased in proportion to the extent of the inflammation.

Now veratrum viride accomplishes both these in a safer, and more satisfactory manner. Let us compare their effects still more closely. The mechanical effects of bloodletting are gained at the expense of a portion of the life-current of the body, the immediate advantages of which are but temporary, since the amount and force of the blood may soon become as great as before. The same advantages are attained by the veratrum viride, but in a different manner. By its influence, the heart's action is simply held in check, the force of the circulation being reduced to its natural standard, while every drop of blood is preserved, so that, as soon as the fever is over, a quicker and more perfect convalescence is ensured to the patient.

The sedative effects of bloodletting are too often merely temporary, and in those whose nervous system is easily impressed, often followed by a reaction so great as to produce an increase of organic action, even to a greater degree than before the operation. In such cases, a repetition of the bleeding would be extremely hazardous, and might only serve to increase the difficulty. Even when bleeding can be well endured, it is a remedy that cannot be persisted in. If it conquers, it must do so at a blow, which, though a victory for the time, yet in the end may completely defeat the object in view. On the other hand, the sedative effect of veratrum viride is free from the danger of too great reaction, since we may continue its administration for a long period with safety.*

2. *Effect on the Respiration.*—This needs but a passing notice. The number of respirations per minute is reduced, although the ratio of its frequency,

* Dr. P. D. L. Baker, of Alabama, in Southern Med. and Surg. Journal.

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as compared with that of the pulse, is not always preserved with precise uniformity.

3. When the dose is sufficiently large, or when frequently repeated, nausea and vomiting soon follow. A sense of coldness is felt by the patient, together with weakness in the muscles, and inability to control their movements. This latter effect, together with increase of the secretions, is sometimes produced without the vomiting, thus showing that it is not the depressing influence of the nausea alone which produces these symptoms. When vomiting follows, the effects of the drug are most striking, the number of pulsations being reduced one half, and even more. The body is covered with cool perspiration, often attended with a tingling and benumbed sensation of the limbs. Dilatation of the pupil, faintness, vertigo, and dimness of vision, give further evidence of its power. The prostration at this stage may become so great as to alarm those who are unacquainted with its action. But I have been unable to find any fatal case of poisoning recorded among the numerous instances of its use. In fact, its poisonous effect seems to be prevented, in large doses, by prompt emesis. Possibly, if a very large dose were given, enough might be absorbed to overwhelm the action of the pneumogastric nerves and thus prevent vomiting, as in the case of antimony. This yet remains to be proved.

The danger, if any exists, of an overdose being given by an inexperienced nurse, through mistake in giving the tincture in drops, may be easily avoided by mixing it with water, or any convenient vehicle, in such proportion that a teaspoonful may represent the required dose. The depressing effects are readily controlled by combining it with opium, or by giving alcoholic stimulants, as brandy or wine.

4. The secretions are also somewhat stimulated, especially those of the kidneys and skin. Yet we would not think of administering it solely as a diuretic or diaphoretic, when we have others of so much greater value.

In order to determine, for my own satisfaction, the effects of the drug on the system, I took the tincture at two different times, once on January 16, 1862, and again about a fortnight later. I will give the results of one of these trials, as an example of its physiological effects. February 1, 1862.—Now in good bodily health. Weight, 145. Pulse naturally not far from 75, when sitting down. At 2, P. M., after a light meal, took seven drops of tincture of veratrum viride, pulse at that momont being 70, respiration 16. In one hour, pulse was at 65. At 4, P. M., took seven drops again, pulse at 60. At 6, P. M., took four drops, pulse at 50. From 6 to 7, P. M., there was some nausea, but not much. Feeling of weakness throughout the body. At 8, P. M., took six drops. Half an hour afterwards, pulse was at 46 per minute. Considerable nausea, no vomiting, but an indiscribable feeling of lassatude and weakness in limbs. Retired to bed at 9½, P. M. Noticed no sensible increase of perspiration, and slept soundly till morning.

In order to determine whether there were any marked diuretic effects, I had, for one week previous to this trial, kept an accurate record of the excretion from the kidneys, with the amount and specific gravity of each excretion, in order

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to obtain an average, with which to compare the result, while under the influence of veratrum. The result, tabulated, is as follows:—

Date.	Amount in fluid ounces.	Specific gravity.
January 22, 1862.	29.	1024
" 23, "	30.5	1023
" 24, "	31.	1024.5
" 25, "	18.5	1028.5
" 26, "	20.	1025.5
" 27, "	23.5	1025
" 28, "	26.	1022
Total,	178.5	7172.5
Divided by 7,	25.5	1024.6*

The greatest amount at any one time was 18 ounces; the least, 2½. The highest specific gravity at any time was 1034. Lowest, 1020. Reactions were generally acid, occasionally neutral at noon. Once alkaline.

Under the influence of veratrum viride, the same observations were made through twenty-four hours after taking the first dose. The amount excreted during those twenty-four hours was 35 ounces. Specific gravity, 1020. The amount of ingesta taken each day was nearly the same in quantity and quality. Thus, we see that there is a considerable increase in the amount and a corresponding decrease in the specific gravity of the excretion; the decrease in solid constituents probably being relative and not absolute.

III.—Therapeutical Value.

That a *student of medicine* should say much from *experience*, would appear rather presumptuous. What I have to say upon this subject will therefore necessarily be somewhat brief.

In the medical journals for the past four or five years, there is scarcely a disease in the whole range of medicine for which this remedy has not been proposed. One would think, from a perusal of these journals, that a new panacea was about to be launched upon the sea of drugs already at the physician's disposal, and that everything, from measles to hydrophobia, would now yield to its power. Such has been the case with very many articles of our materia medica, on their first introduction, and they have been a long time in settling down to their proper position.

Having noticed the effects of this drug in health, we are now better prepared to observe its use in the treatment of disease. What abnormal conditions of the system would seem to indicate the use of a remedy with properties like those just described? Unquestionably those inflammatory diseases, whether general or local, which are attended with high arterial action. By this we do not mean to say that all diseases attended with inflammation should

* This average specific gravity, 124.6, is only approximate, and therefore not perfectly correct, since the daily amounts vary.

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be treated with veratrum viride. It does not follow that we benefit a patient in proportion to the degree in which we diminish the number of pulsations of his heart per minute. A certain frequency is necessary for the healing process in inflammation. A certain excitement is also necessary, to eliminate morbid poisons from the body, as in scarlatina and typhoid fever. Again, the rapid pulse and nervous excitement, in certain inflammations, may be of such a character as to be borne without interference. After these, there supervenes a period of depression, and if given beyond this point, this remedy may add to the depression and diminish the chances of recovery. Veratrum viride, however, has this advantage in such cases over digitalis, that it is more rapidly eliminated from the system, and, unlike digitalis, is not cumulative in its action, and may therefore be safely continued for a long period. From the similarity of its action to that of other vegetable sedatives of this class, we should be led to suppose that it has also a great advantage over antimony. For the latter diminishes the plasticity of the blood, and thus destroys one of its most vital properties.

Of the class of diseases before named in which veratrum viride is indicated, pneumonia ranks among the most important, and here certainly it has proved of the greatest advantage. Says Dr. Rogers, of New York, "It has no specific effect on the inflamed lung." In fact, no such virtue has been claimed for it. "It does not in any way modify or arrest the inflammation. On the contrary, the inflammation goes on to its usual results, entirely uninfluenced by the remedy." *

Now, with the veratrum viride we may reduce both pulse and respiration to any desirable limit, by the administration of from five to eight drops every three or four hours till nausea is produced, and frequently without the nausea. Let us now imagine the whole amount of blood in the body bounding through the vessels of the pulmonary and general circulation, at the rate of 120 to 140 pulsations per minute. "Assuming that two fluid ounces are expelled at every pulsation," I quote the article just referred to, "at this rate the whole amount must pass through the heart in one and a half to two minutes. Now in acute pneumonia, where the capacity of the lungs is greatly diminished, and the demand for activity is correspondingly increased, an increased quantity of blood must be constantly pouring into the tender and inflamed lungs. Every respiration gives the patient increased pain, and every pulsation adds new suffering, and the patient at last sinks under the combined reactions of the disease, the respiration and the circulation. Now the veratrum entirely controls the circulation, in some degree also the respiration, while the disease is allowed to go on to its termination. The benefit derived from its use is this: the impulse and amount of blood forced into the lungs in a given time is greatly diminished, thus affording them a degree of rest, such as is most favorable

* American Med. Monthly, June, 1856. It may be noticed that what is here quoted as a fact, is stated in the preceding paragraph (in comparing V. viride with antimony) merely as a hypothesis, and that although this is its probable action, still, no experiments have been cited to prove that it is actually so.

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for a quick resolution of the disease. And all this is done without the loss of a single ounce of the life-giving current of the body."

The same may be said with regard to pleurisy, in which the inflammation is concentrated upon the lining membrane of the lungs and chest. Perhaps veratrum viride will not in every case do away with the lancet; but it is certain that those who have employed the former in pleurisy, have thought it necessary to bleed in but a very few instances. Experience also shows that the danger from subsequent effusions is much lessened.

It has been found of great value in puerperal peritonitis, in connection with opium and wine. In this disease my preceptor, Dr. Benj. Cutter, states that he has given the full dose of half a fluidrachm, and repeated the same in thirty minutes, with perfect safety and success. This was done for the purpose of producing emesis, and thus hastening the sedative effect, which is so clearly manifested whenever the medicine occasions nausea or vomiting. The system, suffering with acute pain, tolerates the drug in much larger doses than would be safe in health, probably from the same reason that opium has been safely given in enormous doses in the same disease.

It is also of great value in controlling the heart's action and relieving pain in acute rheumatism.* In fact, the history of the drug tells us that this was the first disease in which it was used to any considerable extent. Its additional diuretic property renders it valuable in the treatment of rheumatism. In this respect it resembles colchicum, another plant of the same natural order.

Dr. Toland, of San Francisco, makes the following statement:—"When venesection is resorted to in acute rheumatism, to diminish arterial action, metastasis to the heart frequently occurs, and that organ becomes incurably diseased, which could not result from the use of veratrum, by which the same indication can be as certainly and more speedily fulfilled."

This statement naturally leads us to another class of diseases in which we should expect to derive much benefit from a medicine with qualities like these. I refer to organic and functional diseases of the circulatory organs. It has already been employed in such cases with considerable success, and might be of still further use in combination with digitalis. This plan of combining drugs together, so as to unite their useful properties in one form, has not been tried to any great extent with veratrum viride, so far as I can learn from reported cases. Many of the most useful preparations in our materia medica are combinations of drugs in one form; *e. g.* pulvis Doveri, pil. comp. cathart., &c.

Among diseases of this nature may be mentioned aneurism, and here we see that if it is valuable to the physician it is still more so to the surgeon. It may be used with great advantage before, and also after, an operation; in the former instance, especially when the aneurism cannot be readily reached by surgical means, as of the aorta, or any of the arteries within the great cavities of the body. In the latter instance we may readily control the circulation,

* American Jour. Med. Science, vol. xvi., p. 296.

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and thus diminish the danger of secondary hæmorrhage. "Venesection," says the article last alluded to, "besides diminishing arterial action, also interferes with the restorative process. But with veratrum viride the effect can be produced, and maintained until the irritation resulting from the wound subsides, and the system accomodates itself to the derangement of circulation, resulting from the obliteration of a large arterial trunk." I noticed its use in the Blockley Almshouse, Philadelphia, at the cliniques a year since, in two cases of aneurism, with considerable relief to the patients. I will conclude this aneurismal paragraph with the statement of Dr. Coale, of Boston: "The agent, however, to which we are to look as a sheet anchor in such cases (referring to aneurisms) is veratrum viride." Again, in the fever resulting from wounds, whether accidental or surgical, it is beneficial, and much superior to antimony. For while the latter devitalizes the blood, the former *doubtless* allows the process of repair to go on to its termination, while the coagulability of the blood is not impaired. Thus union, either by first or second intention, is promoted, and the liability to secondary hæmorrhage prevented.

I have thus, in naming these few diseases, endeavored to illustrate those conditions in which veratrum viride is peculiarly indicated by virtue of the properties which it possesses.

Since writing the above I have added a few investigations in regard to another subject, so intimately connected with this as to be worthy of notice here.

Veratria.

The properties of veratrum viride have led many to suppose that it owed its power to some active principle, perhaps veratria, an alkaloid which has hitherto been obtained from the seeds of a Mexican plant of the same natural order.

On hearing the statement made during the present winter, in the lectures on arterial sedatives, that the active principle of this plant had not yet been determined, I was somewhat curious to investigate the subject and ascertain, if possible, whether its active principle were really veratria, or if it bore any similarity to it.

In making the trial, I made use of the mode given in the *Edinburgh Pharmacopœia*, preferring it to that of the *U. S. Pharmacopœia*, on account of its greater simplicity. The process is as follows, with the exception that in place of tincture of cevadilla seeds, the tincture of veratrum viride root was substituted. Four ounces of the tincture were concentrated by slow evaporation over a water-bath, until a deposit began to be formed. The residuum was poured, while hot, into twelve times its bulk of cold distilled water. This was filtered through calico, and the residuum on the filter washed, so long as the washings precipitated with liquor ammonia. The filtered liquid and the washings were united, and an excess of ammonia added. The precipitate was collected by filtration, washed with cold water, and dried by means of imbibition and the vapor bath. A slight additional amount was also obtained by evaporating, and cooling the remaining ammoniacal liquid.

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The result obtained by this process was a brownish powder, in amount about two and a half grains. The same process was tried with four ounces of the tincture of the seeds already mentioned, and a similar powder was obtained, somewhat lighter in color, and in amount about three quarters of a grain.

Properties of the substance thus obtained.—The alkaloid thus obtained is soluble in strong alcohol, but insoluble in water. The following reactions were obtained by chemical tests. A dark orange-red color, on adding a drop of sulphuric acid. A portion dissolved in dilute acetic acid gave a white precipitate with liquor ammoniæ. These reactions are also characteristic of veratria, a quantity of which I had procured, in order to compare the two together.

Under the microscope, with a power of 300 diameters, the following appearances were noticed. Having dissolved a small portion of each in water acidulated with acetic acid, a few drops of sulphuric acid were added. This solution was partially evaporated at a gentle heat, and a drop of each placed on a slip of glass. The microscope revealed a multitude of beautiful acicular crystals. The crystals obtained from these two solutions are very similar, though more slender and beautiful in that obtained from the officinal veratria than that from the nameless product in question. A similar result was obtained by the action of hydrochloric acid, except that the crystals were in both cases shorter and thicker, and some of them disposed to assume the shape of hexagonal prisms.

Physical Properties.—After trying the above reactions, hardly a homœopathic portion of the original amount remained, with which to test its physical properties; but there was a sufficient amount to induce considerable sneezing, and also an acrid bitter taste when taken into the mouth. The remainder, thoroughly mixed in lard, produced a slight redness of the skin, when rubbed upon the surface.

These facts, when taken together, would seem to prove that these two alkaloids, if not identical, are yet very similar in their natures.

Alcoholic Treatment of Wounds.—Acting upon the suggestion of Messrs. Batailhe and Guillet, as expressed in a phamphlet lately published in Paris, Mr. A. Pritchard, of Bristol, has used the compound tincture of aloes, differently diluted, as an external application to ulcerated legs, superficial burns, contused, incised and lacerated wounds, and an ulcerated stump. He found it to be an application in recent wounds, however deep, checking the suppurative process in a marked degree, destroying the fetor, and favoring union by the first intention. It is not suitable for inflamed wounds, nor where there is erysipelatous state of the skin, nor for simple cutaneous wounds, where careful apposition alone will suffice to procure immediate union.—*British Med. Journal; Pacific Medical and Surgical Journal.*

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Hydrargyrum Cum Creta.

In the *Berkshire Medical Journal* for December, Dr. Samuel Duncan, of Williamstown, Massachusetts, has an article upon the hydrargyrum cum creta. We have space only for the doctor's conclusions:—

"1st. When this preparation of mercury is exposed to the light, especially during the summer, a portion of the suboxide which it contains is decomposed into the medal and red oxide, (protoxide,) which, in sufficient quantity, always acts as a violent instant poison.

"2d. That the older the preparation, and longer the exposure to light, the less the mercury, and greater the amount of the oxide.

"3d. That in order to have a perfectly reliable article of hydrargyrum cum creta, it should be made of pure material, kept in a cool place, and excluded from the light.

"4th. That freshly-made and light-colored specimens are best, and those of a deep color should be rejected.

"5th. That this preparation is unstable; that it tends to separation by the volubility of its mercury, and the superior nobility and gravity of its particles.

"6th. That we have no reason to suppose that mercury, however pure, exerts any influence on the system in its metallic state; but that it must first be converted into an oxide, and this oxide must be basic to a soluble compound; and that the amount of suboxide in hydrargyrum cum creta is not at all injurious, providing, however, it remains as such; and that when this preparation proves an *irritant in itself*, it is due to a higher degree of oxidation."

In the same journal above referred to, Dr. H. M. Seely has an article upon the same subject. Considering the subject of the first importance, we make a few extracts:—

"As it has been observed that samples which, when fresh, were administered with desirable results, were found, after a time, to lose their character and to degenerate, some other cause aside from improper manufacture must therefore be sought.

"The fact just mentioned, that samples at first reliable become useless, compels us to look for a change in the material itself. Does the metallic mercury in its finely divided condition become gradually oxidized, so that not only metallic mercury, but one or both of its oxides are administered?"

After describing several processes of analysis, he observes:—

"Of a specimen thus analyzed, which originally should have contained 87·5 parts of metallic mercury, 22·25 parts had changed to the red oxide, and 4·05 parts to the black oxide, leaving less than a third of the metallic mercury in its original condition.

"With a knowledge of such a change in the character of the metallic mercury before us, we need look no further for the cause of the alarming result attending the use of long-kept samples of hydrargyrum cum creta; the oxide existing in the powder produced by the gradual oxidation of the finely divided particles of mercury probably being converted in the fluids of the stomach into compounds of a more energetic character.

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"These facts will hardly deter those who have been accustomed to prescribe this preparation with satisfactory results, from continuing its use; for, as heretofore, they will secure fresh samples from trustworthy manufactrers. If at any time they find the result of their prescription different from what was anticipated, they will at once suspect the cause, and rejecting the deteriorated sample, resort to a new and reliable one.

"Those who have abandoned its use will hardly return to it, preferring to rely on the metallic mercury in the form of blue mass, in which the metal, though finely divided as in the cretaceous powder, is not so liable to oxidation, surrounded as every little particle is by a vicious covering, shutting off the oxygen of the air.

"The knowledge of these facts should lead either to a very careful selection of this preparation, or to the substitution of one of a less variable character." —*Med. and Surg. Reporter.*

DIPHTHERIA.—Our readers will remember that we have several times expressed our opinion in regard to local applications in diphtheria, and the comparative value of the respective agents thus used. We have objected to strong solutions of nitrate of silver and given our preference to the muriate tincture of iron.

In the *Berkshire Medical Journal* for December, Proffessor Henry Thayer has a few remarks in coincidence with our own:—

"He remarked that, since the opinions which he had expressed a year ago on the subject of topical treatment, he had found tincture of the sesquichloride of iron more effectual for this purpose, in most cases, than the nitrate of silver; and from all the reports on the subject during the year, he inferred that the use of the tincture of the sesquichloride of iron, or of the tincture of iodine, or of the bromide of potassium, was generally preferred to the solution of the nitrate of silver by those who had had the best opportunity to judge of their effects.

"He had found some physicians who had no faith that any benefit was derived from local applications, and consequently omitted them entirely. But without considering the local application capable by itself of controlling the disease, there was the fullest evidence that it was a very effectual adjuvant to the constitutional treatment. His own experience had satisfied him on this point, and it was fully sustained by numerous authorities; indeed, by all those who have written from personal experience upon the subject.

"He brushes the exudation membrane and the whole reddened surface twice a day with the tincture, sometimes slightly diluted, until the inflammatory condition begins to exhibit a constant abatement, after which its use is gradually suspended. The effect on the exudation is often very marked, and the increase of inflammation is less rapid, and convalescence earlier, than when the local affection is let alone."—*Med. and Surg. Reporter.*

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Pyrophosphate of Iron.

Extracts from Prof. CHAPMAN'S Paper, on the History, Preparation and Therapeutical uses of the Citro-Ammoniacal Pyrophosphate of Iron, name in brief Pyrophosphate of Iron, in the Boston Medical and Surgical Journal.

The pyrophosphate of iron, a white and tasteless powder, resembling prepared chalk, is obtained as a gelatinous precipitate in the reaction between the pyrophosphate of soda and the tersulphate of iron in solution. A given proportion of citric acid in solution is neutralized by liquor ammoniæ, as shown by test paper, when pyrophosphate is added, and the liquid boiled until the salt is dissolved. We now have the citro-ammoniacal pyrophosphate of iron in solution; from which we may obtain the solid salt by evaporating to a thick consistency, and then spreading the product on large plates of glass. It takes the form of lamellæ of greater or less thickness; these, when thin, are flaky, brittle, and of a yellowish green color, but when more massive are of a duller and deeper green, and of a resinous appearance. This salt, which has a slightly saline taste, may be made into pills, or dissolved in water in any proportion, by the aid of heat. The solution does not require any addition to disguise it, as the saline taste is trivial and not unpleasant, though sugar and a flavoring ingredient may be added to suit the caprices of patients. Syrup completely conceals the iron and renders the preparation tasteless. This may be made of any desired strength. I usually give from three to five grains of the pyrophosphate three or four times a day.

The solid salt contains its ingredients in the following proportions to the hundred parts:—

Pyrophosphate of iron (anhydrous)	48.8
Citrate of ammonia (neutral)	34.66
Water in combination	16.54
Total,	100.00*

The 48.8 parts of the pyrophosphate contain 7.27 of metalic iron. It is a sesqui-salt, represented by the formula $2\ Fe^2\ O^3, 3PO^5$, and formed by the reaction between three equivalents of the pyrophosphate of soda $3\ (2\ NaO, PO^5)$ and two of the tersulphate of iron $2\ (Fe^2\ O^3, 3\ SO^3)$.

The citro-ammoniacal pyrophosphate of iron affords certain marked advantages over the preparations of iron hitherto in use. Its tastelessness, in solution with sugar, and elegant appearance, in our day, when the nauseous doses of the older practitioners will not be tolerated, is an important item in the case of children, or adults even, when the employment of a remedy is demanded for a period of time. There is every reason for presenting our medicines in as palatable and pleasant a form as possible. In addition, there are many persons of a nervous, delicate organization, particularly females, who cannot take the ordinary preparations of iron. They disorder the stomach—in their language are too heating—and thus not only fail to be assimilated, but,

* See American Journal of Pharmacy, January, 1861, p. 39.

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by perverting the gastric and intestinal secretion, seriously interfere with the digestion. Hence, instead of enriching the blood by new materials, we are merely cutting of the original supply, imperfect as it is, and making the gastric surfaces a centre of morbid irritation. We observe a similar but more complete abeyance of the nutritive functions, in most patients much reduced by an exhausting disease. However much iron may be indicated, it cannot be borne, much less appropriated by the absorbents, until the digestion is restored by bitters and stimulants.

A marked peculiarity in the pyrophosphate of iron is the fact that it will, scarcely ever, in any of these cases disagree, and very frequently patients who cannot tolerate the ordinary forms of iron, will bear this well, and receive great benefit from its use. Like the others, it may fail to add to the blood a richer pabulum, from some fault in the vital processes of nutrition; yet unlike these, it will not aggravate the disorder for the relief of which it was given. Where the digestive powers are unimpared, it matters little what preparation is selected, as far as its tonic action on the blood is concerned; since all—certain chemical reasons to the contrary notwithstanding—will fulfil this indication satisfactorily. The new salt will supply the iron to the blood-globules as promptly, but not more so, than the others.

It has, however, another and more important property, which has entirely escaped attention; that adds new virtues to the iron and bestows on this special compound advantages possessed by none other in the Materia Medica. These arise from the pyrophosphoric acid. This acid, or the element, phosphorus—which, has not been definately determined by chemists—exists alone in a free state in the great ganglionic nervous centres. According to Frémy, the phosphorus is combined with the brain-fat, forming what he calls the oleo-phosphoric acid. This, by boiling for some time in alcohol or water, splits up into olein and phosphoric acid. This brain-fat, cerebric acid or cerebrin, is the protein-body of the nerve-centres, and its great peculiarity is the amount of phosphorus it contains. Frémy makes it 9 parts to 1000. There are many other protein-bodies with specific properties that effect peculiar vital transformations, such as, for example, the nitrogenized element in the gastric juice, the pancreatic secretion, casein and the albumen of eggs or blood. This nitrogenized element, by its presence, without any chemical union with the other ingredients, forms a great diversity of new compounds from the same plasma; as, for example, the various secretions from the same blood.

It is, at the present time, tolerably well established (Virchow, Kölliker, Bennett) that all life starts from and is sustained by the agency of cell-growth, and that even morbid actions form no exceptions, but are carried on by the same organic forces. These cells, in their walls, nuclei and contents, contain a peculiar and distinctive protein-body; and being distributed universally in the solids and fluids of the body, are the great vital factors—the pervading life-force—by which organic functions are manifested. Formerly, it was thought that the peculiarities of this nitrogenized, albumenoid substance or protein-body, were due to the nitrogen in its composition, but it has since been

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found that phosphorus and sulphur are usually present. Both of these are contained in the albumen of the egg or of the blood, and in the casein of milk —fluids that contain every element necessary for the perfect development of living creatures. Milk is the most perfect type of the various constituents and their proportions that should exist in our diet.

Nitroganized elements in Albumen (Mulder).		Nitrogenized elements in Casein.	
Carbon	52 97	Carbon	53.61
Hydrogen	6.81	Hydrogen	7.11
Nitrogen	15.11	Nitrogen	15 47
Oxygen	23.54	Oxygen	17.99
Sulphur	1.57	Sulphur	1.11
Phosphorus	.40	Phosphorus	.47

It thus appears evident that phosphorus holds an important place amongst the other elements that contribute to cell-life and nerve-power; but as all nitrogenized food contains it in the same proportions as it exists in the human organism, we cannot select a better remedy for defective nutrition than these ready-formed products. We should naturally suppose, what I have found by experience, that animal food would be the proper agent to restore flesh to an emaciated patient, since it contains each constituent necessary to its formation. At least, I have not found the phosphoric acid to add anything to the iron in such cases. Phosphoric acid united to a base—lime—exists in all the fluids and solids of the body. The phosphorate of lime is formed in the vegetable from the elements in the soil; whence we derive it directly, or secondarily, through animals who have fed upon them. The phosphatic salts are received as such, and are probably carried through the blood to the solids, particularly to the bones, without suffering decomposition and re-construction; excepting, perhaps, in a small ratio. It scarcely could be requisite, when the supply presented to the stomach is always so abundant, to administer any phosyhatic salt for the purpose of adding the phosphate of lime to the blood and thence to the bones. The defect of this saline in the bones is not due to the lack of the elements in the food, but to a fault in nutrition. When this is obviated, the common articles of diet will supply all the materials required. We conclude, therefore, that phosphorus is not demanded medicinally to build up the nitrogenized tissues of our bodies, nor are the phosphates to form the bones, since they are all presented to the blood in great abundance.

Phosphorus is regarded by therapeutical writers as a cerebral stimulant, exalting nerve-power directly, but the action of the heart indirectly, and only a moderate degree beyond the normal tension. Of all the organs, the reproductive are most sensibly affected; a fact satisfactorily accounted for in the male by our knowledge that the semen contains, according to Kölliker, over two per cent. of a phosphoretted fat. As throughout nature nothing is without a use, and every element has an importance, though we may fail to discover it; so we may safely conclude that phosphorus must exist in the nervous centres and the spermatic fluid as an integral constituent in their chemical composition. Probably it plays an important part in the normal excitability, and

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is intimately connected with the manifestation of mind, and the generation of the nervous influence.

In many conditions occuring in disease there might be a lack of this constituent, in a due proportion; precisely as there is of iron in anæmic states of the blood, when our only resource would be to present it in some assimilable form to the system, as there are no substitutes for the elementary bodies. In the case of phosphorus, here has always lain the difficulty; undergoing a slow oxidation or combustion at ordinary temperatures, even when floating on water, its substance would be burnt in the stomach, and a small particle adhering to the mucous surface would occasion irritation or inflammation. It could not be absorbed as phosphorus, and could only be remedial by the phosphorus and phosphoric acids that are formed. These would undoubtedly combine in the stomach with the earthy or alkaline bases, and be reduced to the state of the phosphates existing in the food. These, we know, suffer but little change in the blood, being found unchanged in all the solids and fluids, but particularly in the bones. From them, however, in normal, healthy nutrition, the phosphoric acid in the nerve-centres must be derived. Should there be a great depression of vital power, the acid is not liberated from its combination, in the same manner, as, we know, the iron is not, from the materials for digestion. The iron set free by assimilation in the blood is appropriated by the hæmatin; the phosphorus by the brain-fat. In hydræmia we give the iron in an easily assimilated form; one that does not tax the vital powers in separating it from a chemical combination, and straightway the blood begins to regain its color, and strength and vigor are infused into every organ. When a certain stage of recuperation has been attained, as shown by a more florid blood and a stronger pulse, the iron will be readily appropriated from the food, which, normally, is the source whence it is always obtained. The fault, originally, lay not in the absence of iron in the substances presented to the blood, but in an imperfect elaborating power, which failed to assimilate it. In like manner, I think, phosphoric acid may, from the same defect, not be separated from its compounds, and thus the ganglionic nervous centres be wanting in their normal stimulus. Hence would arise many nervous and neuralgic diseases, and nervous complications in many forms of debility. It is necessary for us to pass the phosphoric acid into the blood. This we can only do by giving it in a saline state, with a base that would be assimilated, and thus set it free. This is accomplished by the iron, which we know, in ordinary medicanal doses, is used in the blood; in other words, is appropriated by the hæmatin, and cannot be detected by any tests. It is a natural constituent in the red globules, and, consequently, not being foreign to the body, behaves precisely as any of the elementary principles that form its structure. Strictly speaking, it is a food, and must be supplied as much as starch, sugar, oils and flesh. * * * * * *

We have employed the citro-ammoniacal pyrophosphate of iron, in certain conditions, with the most marked and gratifying results.

Whenever the blood becomes thin and watery, there are, almost invariably,

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troublesome attendant symptoms, seriously retarding the restoration of the patient to health. In all, there will be a lack of nerve-power, from the hydræmic state of the circulation. Hence, could we temporarily augment the stimulating properties of the blood, whilst we are administering the iron, we should prepare the way and present the conditions required for its assimilation, which otherwise might be impossible. Experience has taught most physicians this practical fact, and the indications have usually been fulfilled by the simultaneous use of wine and iron. We have found the pyrophosphate singularly appropriate under these circumstances, and as superior as a natural excitant must ever be over any substitute we may devise. Persons who have been over-worked by mental application and prostrated by disquietude and care, or persons who have a shattered nerve-power from some constant source of bodily suffering, have a thousand anomalous symptoms dependant on an imperfectly generated and distributed nerve-power—such as wakefulness, trembling spasmodic movements, palpitations, etc. For this class of symptoms, the pyrophosphate of iron often affords relief in two or three days; and thus prepares the way for the ultimate cure that may be expected from the martial salts. Many times, patients have expressed wonder at the calming and tranquilizing effects of the medicine; not only in mere functional abberrations and irregularities, but also in cases where actual disease existed in the nerve-centres. In both instances, the stimulation is immediate and transient, and can be of no avail, except by removing irregular nervous distribution; whilst the iron is appropriated more readily by the organic forces now freed from a great source of disorder. A lady in this city, with spinal meningitis in the cervical region, had great feebleness and trembling, but especially paroxysms of an asthmatic shortness of breath, that greatly interfered with the aëration of the blood. The first trial with this remedy removed, in a few days, the severity of the symptoms; so much so, that the patient was enabled to leave her bed. Her breathing was hurried only on exertion. The remedy becoming less potent in subsequent attacks, and then eventally quite useless, was abandoned, and other means were resorted to with the same ill success. The patient, after being under my care, without benefit, for three months, moved into the country, and nothing has been heard of her since. In other instances of anæmia, where time showed an organic basis for the nervousness, a temporary advantage has been gained by this form of iron; showing the stimulation afforded by it to the brain and spinal marrow. This stimulation, although only temporary, is of permanent value in all functional disorders of the nerve-power, where, in the meantime, we can rectify the states on which they are dependent. This is shown markedly in anæmia and chorea united. A young girl, 16 years of age, presented herself at the Hospital Clinique with symptoms of anæmia, amenorrhœa and chorea. She had been unwell at two periods, four months ago; but since then her turns had failed, and she had become affected by these involuntary motions, which now were so great and uncontrolable as nearly to forbid her standing or walking. She was ordered laxatives for the constipation, which was obstinate; and the

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pyrophosphate of iron in five grain doses, after each meal. This was the only treatment, from first to last. Her appetite, which had been capricious and uncertain, returned; the torpor of the bowels became less obstinate, and the involuntary jerkings of the muscles subsided to such a degree that the girl in two weeks walked to the Hospital unattended. In six weeks the menses returned, when the choreaic movements, which had become moderate, were greatly increased during their continuance. In the interval there was a continual improvement, as the color of the face returned, but only a slight exacerbation during the next period. In three months the restoration to health was perfect. Perhaps the common forms of iron, as I have seen in two or three instances, might have been efficacious and attended with success, but I am confident the first stage of the cure would have been more tedious, from the constant muscular action which exhausts the patient. By the tranquilizing power of the phosphoric acid, the movements were moderated; the patient was enabled to fall asleep readily, which she could not do before, and the assimilation was strengthened, so that food and iron rapidly improved the blood.

In one other case of chorea and anæmia, the same happy result followed this course of treatment.

In palpitation of the heart in anæmic subjects, I have seen many instances of the power of this remedy in removing this symptom long before the blood was restored to its normal condition. But palpitation, when not due to impoverished blood entirely, may be, often times, equally amenable to this remedy.

A lady of this city, 45 years of age, feeble, emaciated, and the subject of paralysis agitans for many years, was tormented by an aggravated form of palpitation of the heart. This, at times, was very severe and persistent, and never benefitted by a variety of medicines prescribed by different physicians. The cause of this irregular and tumultuous action was evidently due to the defect in the nervous influence. The pyrophosphate of iron gave her the most prompt and perfect relief, so much so, that she sent a person affected with this disease to my office to obtain the same prescriptions. In this case, also, the result was satisfactory. In even more grave disorders of the heart, the value of this remedy has been signally shown.

A young gentleman, 23 years of age, came to my office, suffering fearfully from angina pectoris. He was first attacked five years previously, whilst in the country, and was obliged to give up his employment and travel for health. After six months' respite he obtained some relief, but from that time he had been followed by returns of the paroxysms at frequent intervals, though much less severe until of late, when they had become more grave than ever before. There was a sense of agony; a fear of impending death; and he was conscious of an irregular, tumultuous throbbing of his heart, even in sleep, which was fitful, unrefreshing and disturbed by frightful dreams. His countenance was haggard, and bespoke the utmost dejection, and he felt as though his chest was tightly bound by a chord, and as if each pulsation of his heart would be the last.

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On examination, no organic disease could be discovered. The heart contracted tumultuously—by fits and starts—with a rolling, tumbling, uncertain action, but spasmodically, and with a sharp, metallic ring. The pause was irregular and intermittent, and the volume of blood in the artery was uncertain and unequal.

Latterly the young man had been employed in a wholesale dry goods store in New York, and had passed most of the day on an underground floor. As he appeared to suffer from considerable gastric and heptic disorder, two cathartic doses of blue mass were given, and followed by vegetable bitters and antacids. These failing, he was ordered assafœtida, valerian, camphor, etc., with the like ill result. At this time, two weeks from his first visit, he was much worse, so much so, that he fell on the floor insensible one afternoon after returning from business. He was now directed to take the pyrophosphate of iron, in five grain doses, three times a day, and to omit all other medicines whatsoever. The patient remained under the same circumstances as to air, diet, exercise, etc., and still persisted, from a fear of losing his situation, in going to the store every day. There was a sensible amelioration in the severity of his symptoms almost immediately; which became very apparent in four or five days. Insensibly he began to sleep with tolerable comfort, and to experience a more regular and equable action of the heart. At times he would lose a sense of his condition, which ever had followed him like a malignant spirit. The change in his countenance, in the state of his pulse and rhythm of the heart, as discovered by auscultation, was remarkable. The improvement was steady but rapid, until the restoration to health was complete, which took place in four weeks, without any change in, or any addition to, the prescription. Now, after an interval of more than two years, he remains in perfect health, and was enabled to rush to arms, with thousands of other compatriots, for the defence of the old flag and the constitution of our fathers. He endured three months' service as readily as the others. Since he returned I found, on examination, that his heart acts perfectly and normally.

A young married woman, never pregnant, 34 years of age, was admitted into the Hospital a year since. She was thought by her physicians to have an aggravated, organic heart disease, that had nearly run its course. Her present illness dated back some eight months, and apparently commenced with gastric and hepatic disorder, which gradually induced despondency, nervousness, and palpitation of the heart. She had a sallow complexion, loaded tongue, vomiting, which was frequent, of a bitter matter; a strong, tumultuous and irregular action of the heart, with a metallic ring; a sense of great suffering and a fear of impending death. She was gloomy, hopeless, hysterical, with many shifting neuralgic pains. Shortly before her admission she lost the use of the lower extremities—could not stand, though when in bed she could draw up her feet, but with great effort and difficulty. I could discover in her case no evidences of organic disease, and was inclined to think that when the functional disorders of the liver and digestive organs were corrected, it would be possible to mitigate, at least, the irregular action of the nervous

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system which was supposed to be mostly of a hysterical character. A variety of means, such as blue mass, bismouth, creosote, quinine and bitters were employed for two weeks or more, to correct the state of the stomach, check the vomiting, and restore the digestion—which objects were partially attained; but nerve-aberrations continued the same as at first. The pyrophosphate was now given conjointly with vegetable bitters and good diet. The same happy result followed as in the last case. Gradually the use of her limbs, and the regular, natural action of her heart was regained, though from the hysterical element in her case, the restoration to health was not as perfect or permanent as that of the young man just mentioned. She dwelt constantly on her troubles, and being much alone and neglectful of exercise, she relapsed, six months after dismissal, and was again treated in the same way, and in three weeks regained her usual health. During the present month I was called to her house and found her with the old symptoms, which she said had been coming on ever since the absense of her husband in the army. She requested the same medicine which had, the other times, been followed by such marked relief to the symptoms. Its power was equally apparent as before. For all the varied and anomalous symptoms of hysterical patients, which are usually some phase of irregular distribution of the nervous influence, the pyrophosphate acts with singular efficiency; diffusing and equalizing the nerve-power, and thus secondarily restoring a more active capillary circulation and a more healthful play of all the functions. Cases illustrative of this point are unnecessary in the milder forms of nervous disease, since the claims of our remedy are sufficiently vindicated in the severer ones hitherto mentioned.

The pyrophosphate of iron has another property scarcely to be expected, and one we should never discover except by actual observation. All of the common preparations of iron are apt to oppress the stomach, coat the tongue and destroy the appetite, especially when the patient is much debilitated. Many, from a delicate, sensitive organization, cannot, under any circumstances, take iron with profit, it being, in their language, too heating. The pyrophosphate is friendly to the stomach, will never cause any irritation of the gastric surfaces, and, to our knowledge, has never disagreed with any patient, however incompatible the other forms may have been. Besides, it appears to possess a tonic power, and will restore the appetite and digestion after the failure of bitters, quinine, wine, etc., often in extreme cases of anæmia, amenorrhœa and chlorosis, as we have witnessed in many instances in our obstetric clinique. It seemed to afford just the grade of stimulus required by the stomach, and the improvement, thus initiated, continued without interruption, under this single remedy, to the complete cure of the patient. This acceptability, friendliness, corrigent and roborant action of this form of iron on the digestive organs is a valuable peculiarity which renders it, in many persons and in many states of disease, superior to all others, and perhaps to any drug whatsoever. Besides, its tastelessness, when dissolved in syrup, is a great recommendation in this age of sugar, when patients desire to die *sweetly*, and will not endure anything nauseous or unpleasant, though death be knocking

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at the door. This we might expect in children who *bring up* their parents to a tolerably high state of discipline, and issue their orders of command from the cabinet councils of the nursery. We medical men, taking the world as we find it, are obliged to render our doses as palatable as possible for babies, both great and small. This object, without detriment in the choice of our means, is singularly and notably attained by the use of the syrup of the pyrophosphate of iron.—*From the Chicago Med. Examiner.*

THE PROPAGATION OF WORMS THROUGH FOOD.—A short time ago, in a country district near Dresden, several persons were taken ill with rheumatic and typhoid symptoms, and one woman became gradually worse and worse, more and more emaciated, and weaker, and at length was removed to Dresden, and placed under the care of Professor Zeucher. There she died. No apparent cause was present to account for her muscular weakeess and pain, her emaciation and death. But her body was dissected, and it was noticed, on examining with a magnifying glass, the muscular tissue, which was everwhere atrophied, that it was covered with minute spots. These spots were separated, and their anatomical structure proved that each spot was an encysted entozoon, known to naturalists as the *trichina spiralis*. The woman's body was full of them. Did this cause her death? And if so, how were these entozoa introduced? Or was their production an instance of spontaneous generation? Subsequent inquiry and experiment answered all these questions. Virchow took a part of the woman's muscle, and, mixing it with other food, fed rabbits with it. In five or six weeks the animals died, weak, emaciated, just as the woman had done; and on examination their muscular system was found to literally swarm with the same parasites. The source of the mischief was eventually traced to the flesh of a pig which had been killed, cured, and eaten in the district, the woman having been one of the partakers, for it was found that the hams and sausages contained a large number of *trichinæ*. Now the discovery and the recognition of the entozoon, and the subsequent experiments undertaken in consequence of its recognition, did not, it is true, furnish a clue to the cure of the disease, but they furnished an infallible guide to its prevention. For they proved not only the parasitic nature of the disease, but that the entozoon was introduced from without; that it was introduced, like many other *helmintha*, through the medium of flesh containing the living organisms; and it pointed, with numerous facts of the same kind, to the necessity of exposing animal and vegetable substances to a sufficient degree of heat to distroy the vitality of an organism they may contain before they are used as human food.—*Med. and Surg. Reporter.*

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On Pharmacy.

By John J. Thomsen.

At the present day the word Pharmacy would not be regarded as a very flattering exponent of the profession, being derived from a Greek word signifying witchcraft, yet if we trace the word to its origin we find it honorable in the highest degree. The use of medicine may be said to be coeval with disease, and the beneficent and charitable object of its use endowed its patrons with a superhuman or priestly character, thus explaining why we find its earliest records among the temples.

In remote ages the Chaldeans or priests of Assyria and the priests of Egypt appear to have had the keeping of learning and of medicine, with what proficiency in the latter however history is not very clear. The remarkable resemblance which exists between the attributes of the Isis, Osiris, Thouth of Egypt, and the Apollo Minerva and Orpheus of Greece, leads us to the conclusion that much if not all the knowledge of medicine known in remote ages was possessed by the Asclypiades or descendants of Esculapius. The manipulations and soothings practiced by the priests of Cnidos and Cos developed electricity, and without knowing the cause they performed all the wonders of table moving, and received pyscological revelations with as much facility as our modern mesmerizers. This together with observing the mysterious power of medicine to remove disease, explains why the imaginativeGreeks attributed all to witchcraft, and called the art Pharmaceutic.

Pharmacy as a separate profession does not appear to have been practiced among any people previous to the Romans, and even among them the art as described by Celsus, was mixed, resembling that of the Surgeon Apothecary of modern times.

It gradually began to assume a more distinct and definite form as the complicated and multifarous vegetable compounds of Galen and the chemical preparations of Paracelsus required labor for their productions. These preparations though very tedious and operose to produce, were not remarkably efficacious, and thus without much change Pharmacy lingered through the dark ages of mystery and superstition. The true development of Pharmacy as a science may date from the introduction of Pharmacopœias or Dispensatories in the 16th century, when approved formulæ for the preparation and composition of medicine were accurately described, and were sanctioned either by the credit attached to the individual author of them, or were enforced by the civil authority of the respective countries in which they appeared. The earliest book of this description which attained any degree of reputation was that of Valerius Cordus which was published at Nurenburgh, 1542. Since that time most of the countries of Europe have had their own Pharmacopœias, published under the authority of their respective governments. Numerous other Dispensatories have been compiled by private individuals at different periods, but in consequence of the great improvement continually made in Pharmacy—changes

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have been constantly introduced as these publications successively appeared—and the United States Dispensatory, 1858, may be regarded as containing all valuable information on Pharmacy up to the time of its publication.

The practice of Pharmacy—is

First.—To select good and sound medicines, and to preserve them.

Second.—To subject them to different operations, either to concentrate their virtues, separate their active principles, or to unite them into new forms, so as to render them more efficacious and convienent for practice.

Thirdly.—To compound and mix them for practice so as to be palatable and acceptable to the patient.

When we consider the numerous varieties of the same species of plants in nature and the primitive forms in which Medicines are presented, the duties and responsibilities of the Pharmaceutists become apparent. We can also appreciate the skill and knowledge requisite, for a just and honest performance of those duties. A sense of honor and probity is preliminarily necessary to avoid the temptation to procure inefficient and worthless medicines, and a knowledge of Chemistry, Materia Medica and Botany to direct his judgment in selecting and procuring them. This proficiency must be the result of long and patient study, and though no longer of a ghostly character, its object is still the same, to relieve pain and suffering, and to restore lost health. Upon the probity and skill of the Pharmaceutists depends the reputation of the art. —*Jour. and Trans. of the Md. Coll. of Pharm.*

Ergot in Delirium Tremens.—Before the Kings County Medical Society, as per report in the *American Medical Monthly* for December, Dr. O. H. Smith said that—

"Some few years ago he gave half a teaspoonful of strong tincture of ergot, every two hours, for *delirium tremens intending* to have used *tinct. opii, but the ergot put the patient asleep.* He was surprised, of course, and supposed it only a coincidence; yet the next case of delirium tremens he attended he *intentionally* gave the ergot in the same way, and with the same effect, and since he has often used it, and looks upon it *almost as a specific for mania a potu*, and asks the Society to try it."

We have, for several years, been convinced of the *sedative* properties of ergot. Almost invariably, for the last five years, in obstetric cases, we have given ergot, about half an hour before we expected the completion of labor. The result has been, we have had no cases of hemorrhage of any consequence, the placenta has been promptly delivered, *and not more than one case in twenty has required an opiate to procure quietude and sleep.* To-day we were called to a case of convulsions, in a married lady, from uterine irritation. So confident were we of the *sedative* and *tonic* action of ergot over the spinal centers, that we gave it, in combination with small doses of morphine, and we have no fears of the immediate return of the convulsions.—*Medical and Surgical Reporter.*

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[From Braithwaite's Retrospect, part 44.]

On the Difference Between Curing and Treating a Fever.

By Dr. Peter Mere Latham.

Let us consider fever in its largest sense, and see first what it is to *cure* it, and then what it is to *treat* it. This difference will display the difference between *cure* and *treatment*, as applied to the management of all other diseases whatever.

Take cold, and heat, and perspiration, occurring interchangeably, whether regularly or irregularly, and in any manner or degree; and a frequent pulse, whether strong or weak, and pain in the head with wakefulness and delirium, or drowsiness and torpor; and the tongue dry and red and clean, or sordid and black; the breathing hurried, and perhaps the bronchi wheezing, the abdomen tympanitic and painful on pressure, and perhaps a sanious discharge running from the bowels; take these symptoms on any day early or late in in the course of the disease; take them all in a heap, and regard them as one, and make them serve collectively for the single aim of the single remedy, and that remedy quinine. This is pre-eminently the cure of fever; and its success, which comes suddenly when it comes at all, must be a sort of triumph.

Again, take all these same phenomena which tell of disorder and disease in the vascular system and the nervous system, and in any or every organ of the body; take them, not as they appear on any one day, but as they ebb and flow and fluctuate every day and night for more than twenty days and nights in succession; and watch each, and try to interpret the meaning of each, and judge which is most perilous in itself, and which bears most perilously upon the whole disease; and which is most within reach of a remedy, and which is most urgent for relief; then choose and apply, not *the* one remedy, but remedies many and various, or few and simple, according to the aims proposed; and take care the right remedy of to-day be not the wrong remedy of to-morrow; pure air to breathe, and pure water to drink; affusions or ablutions of the whole body, cold, warm, or tepid; lotions or fomentations of this part or that; remedies for pain according to its nature and seat; expedients for preventing sores, and expedients for healing them; aperients, and astringents, and mercurial alteratives, according to their several needs; also opium, that great saver or destroyer of life as it is rightly or wrongly given in fever, in its various uses. These are the sort of implements which the physician has to work with when he has to *treat* a fever, and being thus vigilant and analytical about the bedside emergencies of fever, and dextrous in ministering to them, he saves many lives.

And this is pre-eminently the *treatment* of fever; but it may be, and often is, one part of it only. For, after all has been done that need, or can be done, in the way of thus noting particulars and ministering to them, lives cannot be saved without engaging observation and treatment in larger aims. More in one case and less in another, more in one stage of the same case, and less

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in another; but in some stage of almost every case, we have to take the sum of the symptoms, and calculate whether, upon the whole, they mean strength or weakness, vital reaction or vital yielding; and to make choice accordingly, whether it be right to restrain, to lower, to deplete, or to support, to raise, to stimulate; whether to give calomel and antimonials, or to use some kind of bleeding, or to give wine, or brandy, or ethers.

This is the *treatment* of fever in another of its parts. Both together, that which is analytical and that which is summary, comprise the *whole treatment.* If it succeed, its success is after the lapse of many days, and the trial of many hopes and fears. And when success comes at last, it produces nothing like exultation and triumph, but rather quiet satisfaction and thankfulness.

Such is the difference between cure and treatment, when we come to follow them out in their operations, and to think what the one is and what the other, practically and in truth. The difference is so great, that if this vast class of diseases, called fevers, belonging to the whole world, and always existing and raging somewhere, could be taken at once out of the domain of *treatment* and transferred to the domain of *cure* now and forever; and if, instead of needing remedies, as many and various as are the times and places, and men and circumstances wherein they arise, they were found capable of being safely and successfully consigned to one and the same remedy always and everywhere, and in all persons, the practice of medicine would suffer the nature of a revolution. The thoughts, studies, habits, and feelings of medical men would be utterly changed.

So great a revolution is not likely to happen. But a man need not have grown old in the practice of medicine to bear witness to its having undergone considerable changes; and the diseases which have been the objects of them are especially those we have been speaking of; and the changes themselves have still respected *treatment* and *cure.* They have not, however, amounted to anything like a substitution of one for the other; but have only involved measures of more or less, in which treatment and cure have been mixed together, and that not always and everywhere, but partially and from time to time, yet for long times together, and in this place or that; yet it may be over many countries. Thus, febrile diseases which have a contagious or malarious origin, or which arise from causes so occult that they seem spontaneously engendered; also typhus and typhoid fevers, scarlatina, erysipelas, spontaneous febrile hemorrhage, and purpura, will for a time, even for a series of years, and over a great portion of the world, be capable of successful management by remedies addressed to the circumstances and conditions of individual cases—that is, simply by treatment. Again, some or all of these diseases in the same place, during another series of years, will yield less satisfactorily to the same remedial method. The indications will be as well chosen as before, and the medicines used will fulfil their immediate purpose, but the whole disease will not decline as easily or come to an end as soon or as completely as before. And then physicians will not be able to make up for the failure of their tried resources by seeking and finding new indications and new remedies rationally suited to

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them but by using a special remedy which acts and cures, nobody knows how or why—even the great specific cinchona. Then cure has become the needful auxiliary of treatment; and a special remedy given on the faith of a large experience has completed the imperfect work of remedies addressed to rational indication.

Now there are subjects under which the most sober and practical minds cannot help speculating a little beyond what they know. Sure and great results —yet familiar and common, and procured at will and by certain means, but in an unaccountable manner—naturally set us thinking and forming notions how they come to pass; and then it is safest and best to fill up the gaps of our knowledge from analogy. When we are treating a disease, our aim may be to raise the pulse or to lower it, to cool the skin or to warm it, to purge the bowels or restrain them, to augment the secretions of this or that gland or to diminish it or alter its quality; and as our remedies do their appointed work, we witness the whole disease brought to an end. But, when we give cinchona for an ague, we have no single aims; we give it for the whole disease, and the cure follows. Nevertheless, it is according to analogy to believe that it hits a mark of its own, which is more particular than any within the scope of our discernment. Thus cinchona, and all so-called specifics, may work after the same manner with other remedies, which are better understood. They may all equally produce their great results by intermediate operations; only in the one case the intermediate operation is seen, and unseen in the other; aimed at in the one, and unaimed at in the other.

From this view of the matter, it would turn out that our distinction between *cure* and *treatment* is not in the nature of things, but in the imperfection of our knowledge.

Further, from the same analogy, we may fairly believe that there is a certain morbid element, of which cinchona is the specific antidote; that it exists most pure and unmixed in ague, but that it may add itself as an accident to other elements whose property is to produce other forms of disease; and that wherever it exists, and in whatever combinations, its power is still predominant, and cinchona is still needed to bring the disease to an end.

These things may be as analogy would suggest. But in practice there is a mischief in conceiting ourselves wiser than we are. Granted that of the many morbid actions and sufferings which make up the disease, one only may be reached and swayed, or annulled, or curatively modified, by the one special remedy; granted, that thus the complex disease may cease by removal of some one main element, and by some intermediate operation of the remedy; but inasmuch as we know no such element of the disease, and see no such intermediate operation of the remedy, they must be to us as if they did not exist. We cannot construct aims and indications of practice out of hidden things, but must be content for the present to regard the whole disease as a single comprehensive indication, and so prescribe for it the single remedy and expect the cure. We shall perhaps know better some time; but no good will come from our pretending to know better now. Patience under imperfect knowledge is no proof of an unwise mind.—*British Med. Journal.*

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Leaves of the Ricinus Communis as a Galactagogue.

By William Gilfillan, M. D., Surgeon to the Long Island College Hospital.

In the Medical Times, January 11, 1862, I published the report of a case where the leaves of the Ricinus Communis had been used successfully as a galactagogue.

Since that time I have used it in three cases, and I shall briefly record them, that others may be induced to try the remedy. By the accumalated experience which I hope will soon be brought to bear on this subject, the powers of this remedy will be definitely settled, and the range of its applicability correctly ascertained.

Case I.—Mrs. L., a primipara, æt. 22, blonde, quite healthy, was delivered, after a natural labor, December 22, 1861, of a vigorous male child. Her convalescence was rapid, and she was not anæmic. Three weeks after delivery she told me she had not enough nourishment for the baby and was obliged to feed him. Her breasts were fully developed, and there was no ascertainable cause for the deficiency of the lacteal secretion. I waited for two weeks longer to observe if the milk would increase spontaneously, but it seemed rather to diminish in quantity. On the 30th of January, I directed the patient to take a teaspoonful of the fluid extract of the leaves of Ricinus communis, three times a day. After she had taken ten doses she stopped the use of the remedy, as the milk was then quite abundant, as much as the baby could draw, and artificial feeding was not required. However, in less than two weeks, the milk began to diminish rapidly, and the baby required to be fed. On being apprised of this I ordered the patient to resume the use of the fluid extract, and continue it for four or five days. The result was the same as before, the milk became quite abundant, and feeding was dispensed with. Up to the present time the supply continues plentiful. The amount used on this last occasion was ℥ ij. in ʒj. doses.

Case II.—Mrs. M., æt. 25, had previously two miscarriages, and was delivered in the latter part of October of a male child. She suffered considerably from hæmorrhoids, want of appetite, and was in rather feeble health. When the baby was three months old she told me that she required to feed him in great part for the last month. The child suffered from colic and occasional diarrhœa, etc., and constant vomiting, but it seemed moderately well nourished. After a short course of tonics she improved in health, and I desired her to take a dram of the *extract* three times a day. She did so, until ℥ iij. were taken. She thought the milk had increased a little, but I am doubtful if there was much change, as the child still required to be fed. If there was any increase of milk I attribute it to her improved general health. I intended making a second trial of the remedy in this case, after two or three weeks, but at that time Mrs. M. was attacked with measles (for the second time), which

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rapidly assumed an adynamic type, and required strong stimulation with brandy and ammonia, to carry her through the crisis. She is now slowly convalescing, and at a future time I may try the Ricinus communis.

Case III.—Mrs. G., æt. 31, dark hair and clear complexion, tall, and in robust health, was delivered of her fourth child, a boy, Feb. 6, 1862, after a rapid labor. Previous to her marriage an operation was performed on one breast. Probably, from the description, it was the removal of a fibrous tumor; the nipple and a portion of the gland were left, but the nipple was drawn down by the cicatrix, and the breast was not used in nursing. The remaining breast was immensely developed. With her three previous children the milk became more scanty after the first month of lactation, and at three months ceased. At the fifth week, Mrs. G. noticed the milk decreasing, as it had done each time previously. I ordered her a supply of the extract of the leaves of Ricinus communis, and to take a dram three times a day. After taking six doses of it she stopped, as the milk was very abundant, more than the child could use, and *the distention of her breast very painful.* To this date the milk is quite abundant.

In the four cases in which I have used this remedy, there have been three in which the success was unequivocal, and one failure. From such small data it is often fallacious to generalize; but, apparently, no drug in the pharmacopœia acts with more certainty in properly selected cases.

This medicine would seem to be a *direct mammary stimulant.* It is indicated in all cases where such a stimulus alone is wanted for the proper secretion of milk; that is to say, where the absence or deficiency of milk depends upon a want of activity in the secerning process. We often find, where the secretion of milk is deficient, that the "fons et origo mali" lies, not in the incapacity of the mammary glands to secrete, but in the weakened state of the general system, and the impoverished condition of the blood, which contains no pabulum for the secretion of milk. In such a case, a direct mammary stimulant can be of no use. It is like drawing a check on a banker when there are no assets in the bank. Case II. is an illustration of this point. I used the remedy in that case, scarcely believing that it would have much effect. The result did not disappoint me. But when the subject is in good health and the deficiency of milk is dependent on no pathological state, this remedy is indicated, and I believe it will then rarely fail. So much for the remedy as a physiological stimulant; but I believe it may be tried usefully as a therapeutic agent. We find, occasionally, that although the mother's milk is abundant in quantity, it lacks some of the proper elements of nutrition, as evinced by the child wasting away; but if a wet nurse be employed, or the child fed, it begins to grow. In such a case, before resorting to these last means, I would suggest the use of the fluid extract. A remedy which exercises such a power over the quantity of a secretion, must have some effect on the *quality*, and it is at least plausible, that the cases above indicated may be benefited by it. When I have used the remedy I have perceived no effect on the nervous, circulatory, or digestive organs. Its taste is not unpleasant. Where successful,

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its effects have been manifest, in three days or less, but its trial might be prolonged if unsuccessful.

In the case which I reported in January, I used a poultice of the leaves, besides the internal exhibition of the remedy. In the three cases now reported the poultice was dispensed with, and the results were equally favorable. A poultice is unclean and inconvenient, and I believe the internal use of the medicine will accomplish everything. Yet I do not deny the efficacy of the poultice; I believe it would succeed alone in some cases.

The fluid extract was prepared and supplied by Mr. Cushman's successor 941 Broadway, in all the cases. From him I learn that some physicians have tried it, but I have not been able to ascertain with what result. By publishing the results of their experience, whether successful or unsuccessful, physicians will contribute to settle the merits of the drug.—*American Medical Times.*

On Digestion. — Mr. Brücke, of Vienna, (*Constatt's J. d'Pharmacie* for 1859,) has communicated to the Austrian Academy of Science an interesting paper on the influence of acids and pepsin in digestion, and on the question whether the latter is formed during that process; and also, in what manner the secretion of the digestive fluid takes place.

By *pepsin*, Brücke understands the nondescript substance emanating from the glands of the stomach, and which, in an acid solution, has the power of dissolving all albuminous matter *in* the stomach as well as without it.

He found by a number of careful experiments that this power is strongest in a solution of $\frac{7}{8}$th gramme of dry hydrchloric acid in a litre of water, decreasing when the amount of acid rose above $1\frac{1}{3}$, or fell below $\frac{2}{20}$ of a gramme.

Contrary to the generally accepted views of Mulder, that part of the albuminous matter may pass into pepsin, Brücke's experiments go to show that such is not the case. He concludes that the stomach in an empty condition contains no acid fluid, which is only secreted by the action of the nervous system when food is introduced.

Dr. Ebstein (*ibid.*) communicates a series of experiments on the action of saliva, upon starch. Like Leuchs, Frerichs, and others, he found that starch, in contact with saliva, even in the presence of some acid, to a certain extent is converted into dextrin and sugar, and that the secretions of the stomach, though of an acid reaction, do not prevent this change. Dr. E. remarks, that while secreting the saliva necessary for his experiments, he found it advisable to abstain from *smoking*, which, we suppose, he otherwise considers a legitimate occupation during physiological experiments; he does not, however, suggest the same caution in regard to *chewing*.—*Medical and Surgical Reporter.*

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The Taft Root of Persia.

Dr. Polak, the physician to the Shah, transmitted to Prof. Schroff of Vienna, specimens of *rish-e-taft*, a root growing in the district of Taft near Yezd, which is rarely used alone, principally as electuary in neuralgia and other nervous diseases, also in affections of the chest. It is sometimes mixed with food, intended as a kind of practicle joke, to produce hallucination and disturbance of the function of the sense, fantastic movements and lascivious positions, while in large doses it is a deadly poison.

In *tuhfe*, the Persian pharmacopœia, it appears to be confounded with *rish-e-shukeran*, the root of *conium maculatum*, but this appears to be an erroneous source, though the physiological effect of the root resemble that of conium in many particulars. Others call the seeds of rish-e taft skukeran, and this latter name appears to have been used indiscriminately by Oriental as well as European writers for the various species of hyoscyamus and conium.

A few experiments on rabbits with the alcoholic extract of the root as received from Dr. Polak, established, however, a different character for it, in as much as it not only produced the physiological effects of conium and hyoscyamus, but also those of belladonna, and probably of *scopolia* and *mandragora*. It appeared of no essential influence whether the quantity used was 16 or 60 grains (1 or 4 grammes).

An attendant of Prof. Schroff having, without the knowledge of the professor, taken less than a grain of the extract, experienced two hours after at dinner great difficulty in swallowing, besides obstructions to the sight, and great restlessness, which symptoms increased very rapidly, causing extreme distress of mind, fulness, for which relief was sought by cold douche and black coffee; but since the freaks that eyes as well as ears began to play him kept increasing, he sought the professor about five hours after taking the dose. His features presented a very distracted appearance, th cheeks very much flushed, eyes glistening, and the pupils extraordinarily enlarged, so that hardly a trace of the iris remained visible, nor was it acted on by a glaring effect of light, though it produced a painful sensation; there was also double vision to some extent, but the hearing was very much impared, even more so than the sight, causing him to imagine the strangest noises; and there was above all a great disquietude and anxiety. No headache was complained of, nor pain in the back, but fulness, repeated vertigo, and frequent micturition, though he passed only small portions of healthy looking urine. These symptoms decreased in vigor after an hour and a half, and after bringing the patient to bed, the pulse fell from 130 to 120, and by 7 o'clock in the evening to 110. Inclination to sleep then followed, which was indulged in with frequent interruptions, and in the intervals a recurrence of the same symptoms, though with less virulence. On the third day the pupil had very nearly recovered its normal size, and with it had returned the sight, but fulness of the head and a certain weakness of the body remained behind for a whole week.

By comparing these symptoms with those produced by the several solanese,

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Professor Schroff, on referring to the botanical collection of the University, and the several species of hyoscyamus, scopolia, mandragora, atropa, and datura, discovered the root to be that of *Scopolia mutica* Dunal, which Kotschy and Boissier had found at Shiras (Persia), and Unger in the neighborhood of the Pyramids (Egypt). [*Aufzählung der auf einer Reise durch Transkaukasien und Persien gesammelten Pflanzen*, by Boissier (*Geneva*), and Buhes (*Riga*), *Moscau*, 1860]. The plant is likewise described by De Candolle (*Prodromus Syst. Nat Regni Veget.* Vol. xiii, 1. section, p. 552). It is the *hyoscyamus muticus L.*, the *hyoscyamus datora* of Olivier and Bruguière, and *hyoscyamus betæfolius* Lam.

Of the *scopolia dotora* Dunal, the hyoscyamus datora of Forskal (*Flora ægyptiaco-arabica*, p. 45), which is the datora or *tatourah* of the the Arabs, and likewise goes by the name of *sekaran*, the seeds are largely employed, and this is the plant which according to some writers was used for the nepenthe of Homer. There is another species, the *Scopolia boreana* Dunal, from the desert of Sinai, which the Arabs likewise call *sakaran*, and this is the same as *sæcaran*, *sikran*, and *skukaran*. Sikran, according to Ainslie (*Materia Ind.*, London, 1826, p. 167), is the Arab name for herba hyoscyami.—*Drug. Circular.*

Remarkable Case of Suppression of Urine.—Passing the next three papers, we find the report of a singular case. The report is made by Dr. A. G. Purdy, and we quote it entire:—

"Miss A. P., of Lenox, Madison County, New York, aged about thirty-six, is the subject of a long-continued and complete suppression of urine. Her physicians, nurses, parents, and neighbors all concur in the statement that for about six years the suppression has been complete. It is not known that she has voided one drop of urine during the period mentioned. Previous to a complete suppression, Miss P. was, from some cause which we did not learn, compelled to use a catheter at first, daily, then at longer intervals, until the periods gradually lengthened so that two months would intervene. The urine at such time was dark and thick like the sediment of coffee. Miss P. presents a singular appearance; her face once fair, is now black, with the exception of upper lip, and from the corners of her mouth down. Her left arm and leg are also black. The change of color commenced on her left hand at or near the time the use of catheter was discontinued. The discolored portion appears as if covered with a thin coat of dry, black blood. Occasionally, small quantities of blood ooze through the skin. Catamenia ceased about four years since. Dr. W., formerly her physician, says he has seen her expectorate, during a paroxysm of coughing, a substance strongly resembling charcoal. We learned on Monday of this week, from Miss P. and her parents, that for eight weeks past she has not had an evacuation from her bowels. The covering of her face is not continuous but broken, resembling scales which touch without overlapping. The black surface has considerable lustre. I cannot say there is no deception in this case, but think the above statement substantially correct."—*From Dr. Gibbs' Weekly Summary, in Med. and Surg. Reporter.*

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Selections.

QUININE AS A PROPHYLACTIC AGAINST MALARIOUS INFLUENCE.—A committee of the U. S. Sanitary Commission say in their report: It may be fairly assumed, that the power of quinine as a preventive of miasmatic disease is fully established, and that it can be employed not only with entire safety, but with the greatest advantage, even to the saving of life, by healthy persons exposed to malarial influences.—*Amer. Med. Monthly; Cincinnati Lancet.*

SYRINGE FOR DIPHTHERIA.—Dr. Aldis, of London, England, has suggested an instrument for gargling in diphtheria and other affections of the throat. It differs from an ordinary syringe only in having a curved pipe with a closed end. It has two rows of apertures, one for directing the jets of fluid horizontally, the other for sending them obliquely upward, so that the posterior fauces may be well cleansed. The piston is made to work easily, and can be readily stopped when sufficient fluid has been injected.—*Med. and Surg. Reporter; Cincinnati Lancet and Observer.*

POISONING BY APPLICATION OF STRYCHNIA TO THE PUNCTA LACHRYMALIA.—In the *American Medical Monthly* for December, Dr. Charles Schuler has an article upon the above subject. In a case of *amaurosis* he thus applied strychnia by Langenbeck's method, and the most alarming symptoms of poisoning supervened. He thus concludes his article:—

"Without attempting to offer a physiological explanation of a fact which proves that a very small quantity of strychnia may speedily cause death, when absorbed by the puncta lachrymalia, we would call the attention of our professional brethren to the most important point in this case, viz., its bearing upon medical jurisprudence.

"I. From five to fifteen centigrammes, either of pure strychnia or one of the salts of strychnia, placed on the internal angle of the eye of a sleeping man, would be sufficient to destroy life speedily and silently.

"II. The detection of the poison, which could be found only in the lachrymal canals, and on the mucous membrane of the eye, would be extremely difficult, inasmuch as the powder adherent to the corner of the eye might easily be rubbed off by the hand of the murderer, or of the dying man himself.

"III. Experiments upon vertebrate animals would probably furnish some method of acertaining the presence of the poison in the lachrymal canals, or in the blood. Still it is by no means certain that such experiments would have results similar to those observed in the human subject, since the lachrymal apperatus of the lower animals is not so immediately dependent upon the brain and spinal marrow as it is in man."—*Medical and Surgical Reporter.*

HOARSENESS OF SINGERS, PRODUCED BY FATIGUE, ETC.—The first tenor of the continental opera is accustomed to employ, as a remedy for the annoying affection, the following treatment: Take, for five or six days, twice a day, as a bev-

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erage, from five to six drops of nitric acid in a glass of sugar-water. In case the system should become so accustomed to this medicament that its efficaciousness is diminished, the dose should be increased to ten or eleven drops. *Medical and Surgical Reporter.*

Dangerous Fashionable Follies.—An analysis of green artificial flowers has been made by Professor Hofmann, for the Ladies' Sanitary Association. He says:—

"In a dozen of the leaves sent me analysis has pointed out on an average the presence of ten grains of white arsenic. I learn from some lady friends that a ball wreath usually contains about fifty of these leaves. Thus a lady wears in her hair more than forty grains of white arsenic, a quantity which, if taken in appropriate doses, would be sufficient to poison twenty persons. This is no exaggeration, for the leaves sent to me were—some of them at least—only partly colored, others only variegated. In consequence of some inquiries, I have been led lately to pay more than usual attenion to the head-dresses of ladies, and I observe that the green leaves are often much larger and more deeply colored than those which I have received.

"Ladies cannot, I think, have the remotest idea of the presence of arsenic in their ornaments. If aware of their true nature, they would be satisfied with less brilliant colors, and reject, I have no doubt, these showy green articles, which have not even the merit of being, as far as coloring is concerned, a truthful imitation of nature. There being no longer a demand for them, the manufacture of poisonous wreaths and poisonous dresses would rapidly cease as a matter of course."—*Med. Press.; Cincinnati Med. and Surg. News.*

Dr. E. S. Cooper, of the *San Francisco Medical Press*, in an editorial recommending amusements to be more largely indulged in by the residents of his city, makes the following remarks, in regard to the effects of the climate of California upon individuals. We must confess that some of the statements made are altogether new to us.

"Early whitening of the hair and baldness are common among those of studious habits. The nervous system is in a state of tension in most persons of the nervous and sanguine temperaments, and hence such persons grow old very fast; while those of the lymphatic frequently appear to grow younger for several years after their arrival here. It is the peculiar condition of the nervous system, probably produced by the electrical condition of the air, that causes so much insanity in California. It was, in times gone by, believed by most persons that the great amount of insanity occurring here, was dependent upon the great vicissitudes of fortune, which so many individuals suffered. This appeared a rational cause, which no longer exists. Things are settled now; but insanity is not at all diminshed. On the other hand, it is rather increasing; and this is doubtless, owing to the condition of the nervous system mentioned. For correting this, our people must take more physical and less mental exercise than is required in other climates."—*Cincinnati Medical and Surgical News.*

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FUCUS VESICULOSUS AS A REMEDY FOR OBESITY.—M. Duchesne Duparc strongly recommends this plant as a means of diminishing an uncomfortable tendency to obesity. He reports three cases in which its use was attended by a decided diminution in weight, without any other appreciable effect. In one case, the loss was from twelve to fifteen pounds in about two months; in another, the diminution in weight was thirty pounds in three months; in a third, there was a decided relief from the discomfort under which the patient had long labored, but the record is imcomplete. The remedy is best administered in the form of alcoholic extract, of which there may be taken as much as three or four grammes daily. Great care should be used in the collection of the fucus, as it is easily confounded with other marine plants, which are entirely inert, so far as the peculiar efficacy of the vesiculosus is concerned.—*Boston Medical and Surgical Journal.*

GUAIACUM AS A REMEDY IN DIPHTHERIA.—Mr. West Walker, in the *British Medical Journal*, strongly advises the use of guaiacum in diphtheria. He considers it particularly efficacious in combating the affection of the throat which precedes the membranous exudation and the exhaustion of the system. He gives it in combination with chlorate of potassa, and tincture of cinchona. —*Ibid.*

TETANUS SUCCESSFULY TREATED BY CHLORIDE OF BARIUM.—The *Gazette des Hopitaux* reprints from the *Italian Med. Gaz.* the details of a case of tetanus, in which the chloride of barium was successfully administered. It was prescribed in the proportion of sixteen grains to a pint of distilled water, the whole to be taken in the course of twenty-four hours. At the end of the eleventh day the symptoms had nearly ceased, and the dose was reduced to eight grains a day; on the sixteenth day the medicine was discontinued, and the patient left the hospital, well, on the eighteenth day. Several other cases of tetanus are referred to, in which this remedy has been employed with success in Italy, during the past two years.—*Ibid.*

EUPATORIUM CANNABINUM AGAINST ASIATIC CHOLERA.—Julius Clarus, whom we esteem as the best reporter on Materia Medica that we know of, informs us that Dr. Van Dromme claims to have obtained favorable results with Eupatorium cannabinum in the cholera epidemic of Belgium in 1859. An ounce—what part of the plant is not stated—was boiled with 1½ litre [about 3 pints] of vinegar down to 1 litre; one-fifth as much Syrupus Belladonnæ was added to the decoction; and of this mixture, one to two table-spoonfuls an hour, the patient received after every attack of vomiting. The doses were given less often as soon as the cyanosis subsided, and entirely suspended as soon as bilious stools appeared. Besides, warm or cold water (either acidulated or not) internally, washing with vinegar and water, cloths wet with vinegar and water to the abdomen, good ventilation, and not too warm covering of the patient, were employed. In consequence of this treatment, after two or three hours the cyanosis is said to gradually yield, and the warmth of body and pulse slowly to return, while vomiting and rice-water discharges may continue (without

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further injury, as soon as the functions of the heart and respiration are carried on properly,) for some days longer. Of 82 patients so treated 26 recovered.—*Am. Med. Monthly.*

Bark of Pomegranate-Root as a Remedy in Tænia Solium.—A fluid extract of the bark of pomegranate-root is prepared as follows: "Let ℥ ij. stand in Oj. of very strong alcohol for 14 days; filter; evaporate the alcohol, leaving the water of the alcohol combined with the active principles of the bark. This watery extract measures from f. ℥ iv. to f. ℥ vj., the quantity being governed by the strength of the alcohol." The treatment against tape-worm occupies less than twenty-four hours. "The patient takes a purge in the afternoon—either castor oil, salts, or any cathartic which the physician may select; he abstains from supper and breakfast, and then begins with the fluid extract, taking one-third of the whole quantity at a dose, which is to be repeated every hour and a half or two hours. This generally acts upon the bowels within a short time after the third dose is taken, bringing away the entire worm; if it should not act before twelve o'clock, a second purge is to be given." The latter seems seldom necessary. "Sometimes there is slight nausea, either from the medicine or the movements of the worm; this is promptly relieved by a tea-spoonful of vinegar, administered in cold water." Several cases of tape-worm successfully treated with pomegranate-root have recently been reported to the new *Dispensary Medical Society of New York.—Ibid.*

On Pinguoleum Æsculi Hippocastani.—The oil of horse-chestnuts has several times, within the last few years, been brought forward as a very valuable remedy in rheumatic affections. We do not think it entitled to anything like the high encomiums that have been bestowed upon it, (especially in the advertisements of some London manufacturing house, which conceal the details of its preparation,) but yet worthy of a trial. Dr. Stilesen tells us he prepared it by having the chestnuts cut and dried, coarsely powdered, and digested with ether for about eight days. The whole mass was then pressed and filtered. The ether was then distilled, and about half the original quantity reobtained. The last traces of ether were evaporated with great difficulty, and the oil retained the odor of ether. On account of the large quantity of ether required, the oil is pretty expensive. It is used by moistening a piece of flannel with it, and rubbing or applying morning and evening to parts affected. The skin becomes red, and a burning and tingling remains for some hours. The oil is probably identical in composition with croton oil, Stilesen thinks.—*Ibid.*

The External Use of Glycerine as a Sudorific.—The following extract fully expresses the opinion of Dr. Jones, of the London Metropolitan Free Hospital, regarding glycerine as a sudorific, inducing "free and gentle perspiration." The application is made by having the whole surface of the body and limbs sponged with glycerine and water, in equal proportions, night and morning. "It is probable that glycerine has a twofold action on the skin, both tending to the same end—1st. It softens the cuticle, and removes obstructions from the orifices of the sweat-ducts; 2dly. It possibly acts by inducing the escape of fluid by oxosmosis. I have used it in several cases of acute dropsy

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with albuminaria after scarlatina, with good results. I have not found it to produce any injurious effects in any case."—*Ibid.*

Iced Bath in Delirium Tremens.—A practitioner in New York City has been experimenting with a patient suffering from delirium tremens, with, what seems to us, a cruel, and, in a scientific view, unwarranted treatment.

A patient presenting ordinary violent symptoms of delirium tremens, after being left for several days without treatment, was plunged into a bath of ice and water. At the expiration of nine minutes he is reported to have been "perfectly quiet," and was removed. In about four and a half hours the delirium returned, and after some time longer he was again placed in the iced bath. He was this time kept in the bath for twelve minutes, and was then removed, as the report says "on the verge of syncope and gasping." The pulse had fallen from 82 to 50. The patient lived through this terrible treatment, and it is said the delirium did not return.

In most instituations where delirium tremens is continually under treatment, but little medication is practiced; and restraint, with rest in darkness, and occasionally some stimulants, narcotics, nauseants, etc., make a favorable termination in nearly all uncomplicated cases.

It is hoped that the above-noticed violent and inhumane treatment will not be repeated.—*Med. and Surg. Reporter.*

Large Doses of Quinia in Typhoid Fever.—Dr. C. P. Harrington, of Ashland, Pa., writes us as follows relative to the administration of this drug in typhoid fever. He says:

"My mode when first called to a patient is to prescribe sixteen grains of the sulphate to begin in the morning, and so on every other day for eight or ten days. During the remission I usually give from four to eight grains, [per day?] according to age and strength of my patient. In the mean time, if the bowels become loose, I give argenti nitras in one-fourth grain doses every four hours, in combination with one-eighth of morphia sulph. If the tongue becomes black and dry I give ten to fifteen drops of ol. terebinth. every four hours; and, as a general rule, my patients are out of bed in about two weeks. I think there is no doubt but that quinia will cut short an attack of typhoid fever, if the physician will pay strict attention to its remissions."—*Ibid.*

Temperature and Ventilation.—The Paris *Siecle* says that, generally speaking, during winter, apartments are too much heated. The temperature in them ought not to exceed fifteen degrees centigrade (59° Fahr.), and even in periods of great cold, scientific men declare that twelve or fourteen degrees had better not be exceeded. In the wards of hospitals, and in the chambers of the sick, care is taken not to have greater heat than fifteen degrees. Clerks in offices, and other persons of sedentary habits, when the rooms in which they sit are too much heated, are liable to cerebral congestion and pulmonary complaints. In bedrooms, and particularly those of children, the temperature ought to be maintained rather low; it is even prudent only rarely to make fires in them, especially during the night. In addition to keeping up only a moderate temperature, the windows of all rooms, whatever the weather, ought to be opened for a time every day, so as to renew the air.—*Chicago Examiner.*

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Pharmacy.

INDIA CHOLAGOGUE.

By J. A. Mayes, M. D.

I promised, some months since, to give a recipe which would make a medicinal preparation, resembling Osgood's India Cholagogue in every essential requisite. I can give a recipe for a most admirable substitute; one which will leave us no longer solicitous about the composition of the Cholagogue. The medicine made by this recipe to be very similar, if not identical, in taste, smell and effects, being all that is really requisite:

℞ Sulphate of quinia ..... 3 ii.
Tilden's fluid extract leptandria..... f 3 i.
Saturated tinct. stillingia..... f ℥ iv.
Tilden's fluid ext. podophyllum..... f 3 ii.
Oil sassafras and oil of wintergreen, each..... gtts. x.
Best N. O. molasses or treacle q. s. to make 8 ozs. mixture.

This mixture to be well shaken up before a dose is measured, as the quinia, not being dissolved, will settle to the bottom of the bottle. The dose for adults is from one to three teaspoonfuls three times a day. The dose is, however, a matter dependent entirely upon the nature of the case, and may be less or more according to circumstances. Again, the proportion of the ingredients may be altered to suit particular cases. The formula given is extremely well adapted to those cases marked by very great hepatic torpor; of course, in the opposite conditions, not so much of the stillingia would be required; and the proportion of the leptandria and podophyllum may also be reduced. To succeed perfectly in breaking up the paroxysms of fever the quinia cannot be reduced in quantity. It usually requires at least one 8 oz. bottle of the mixture to insure a permanent cure. When Tilden's fluid extracts cannot be had, saturated tinctures may be used, but in increased quantities; say, rather more than double the quantity given of the fluid extract. In order then to preserve the due balance, the mixture must be made to measure ten ounces, and a corresponding increase of dose must be made.

The principle of combining the quinia with those vegetable alteratives which exert their influence chiefly upon the glandular system, exciting them to increased action, will be readily understood by physicians, and will, if adopted generally, lead to a much greater success in the management of malarial fevers, and certainly to a much more satisfactory result in the treatment of the sequelæ of those fevers. I may also add, for the benefit of your Florida correspondent, that the cholagogue compound has succeeded perfectly in several cases of "dirt-eating." If he is a physician, he will readily understand its modus operandi in such cases. Hepatic torpor with weak digestion, being characteristic of the habit, this combination will be very apt to relieve.—*Journal of Rational Medicine.*

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MINIMS OR DROPS?

In conversation with an intelligent apothecary, not long since, we were surprised to learn how generally the medical profession, in writing their prescriptions, disregard the distinction between these two measures of quantity. In looking over a pile of prescritions on his counter, the sign for *minim* hardly occurred in one of them. Now this may seem to be a matter of very little consequence, but it indicates a habit of inexactness which is by no means creditable. The distinction between the two is so marked, and varies so much for different liquids, that we really believe physicians would find it greatly for their advantage to adopt the precise measure. In dealing with powerful remedies, it becomes a matter of no little importance to know precisely the amount of the dose administered; and this can never be the case if we trust to a prescription of drops, poured, it may be, from the capacious mouth of some large, dry lipped vessel by the clumsy hands of an inexperienced apothecary's boy. The oil of bitter almonds has been strongly recommended of late as a means of destroying the offensive taste of cod-liver oil, which it does most effectually. It is about four times as strong as officinal hydrocyanic acid. Such a powerful agent, given, as it is very likely to be, to young children, in this combination, should be measured out with the utmost exactness. Our writers on materia medica, we find, are no more precise than our practitioners in this respect. American writers generally give the dose in drops, or sometimes in drops and in other instances in minims in the same work. English writers, on the contrary, so far as we are acquainted with them, measure the dose uniformly by minims, which is much the best way. To freshen the memory of our readers with regard to the very great difference between minims and drops with different fluids, the same phial being used for pouring, we re-print the following well-known tabular statement, by Mr. Durand, of the number of drops of different liquids equivalent to a fluidrachm:—

Acid acetic (crystallizable),	120	Tincture of assafœtida, of foxglove, of guaiac, of opium,	120
Acid hydrocyanic (medicinal),	45	Tincture of muriate of iron,	132
Acid muriatic,	54	Vinegar distilled,	78
Acid nitric,	84	Vinegar of colchicum,	78
Acid nitric, diluted (1 to 7),	91	Vinegar of opium (black drop),	78
Acid sulphuric,	90	Vinegar of squills,	78
Acid sulphuric aromatic,	120	Water distilled,	45
Acid sulphuric, diluted (1 to 7),	54	Water of ammonia (strong),	54
Alcohol, rectified spirit,	138	Water of ammonia (weak),	45
Alcohol diluted, proof spirit,	120	Wine Teneriffe,	78
Arsenite of potassa, solution of,	57	Wine antimonial,	72
Chloroform,	260	Wine of colchicum,	75
Ether sulphuric,	150	Wine of opium,	78
Oil of aniseed, of cinnamon, of cloves, of peppermint, of sweet almond, of olives,	120		

The difference is also very striking between the number of drops of different liquids equivalent to a fluidrachm, according as they may be poured from a pint or a half-pint tincture bottle or a minim measure.—*Boston Med. and Surg. Jour.*

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TANNIN AS A SUBSTITUTE FOR PERUVIAN BARK.

Dr. Leriche, formerly attached to the dispensaries of the city of Lyons, recently published an interesting memoir on the antiperiodic virtues of tannin. This essay is well worthy of attention, and has been honored with a prize by the Society of Medical Sciences of Brussels; the author accounts for the former failures of tannin in the treatment of periodic affections, by the insufficiency and minuteness of the doses prescribed by Dr. Chaussarel. In the experiments instituted in 1840, by this gentleman, tannin was exhibited in gradually increasing doses from ten to forty-five grains in six ounces of fluid, to be taken in tablespoonfuls every three hours during the apyretic interval. Now, M. Leriche considers that this dose is utterly insufficient suddenly to check the paroxysm with any degree of certainty, and cures the fever only when persevered in for a long time. Hence the treatment becomes quite as expensive as if quinine had been resorted to, and the only advantage of the use of tannin, economy, is sacrificed.

In ague, whatever be the type of the fever, M. Leriche recommends the medicine to be given at the outset in doses of twenty to thirty grains, according to the degree of intensity of the disease, and to be taken three hours before the paroxysm. Two or three doses are usually sufficient to effect a cure, and it may be necessary to exhibit as much as one drachm or a drachm and a quarter at once. If the fever should not yield, fifteen grains only should be given in a mixture to be taken in tablespoonfuls every hour. M. Leriche has never seen this remedy fail in its effects. He has administered tannin in 144 cases, 10 of which were still under treatment when his work was sent to press; 154 patients had been entirely cured, and two of these were men who had recently returned from Algiers with the African fever.

The following are some of M. Leriche's most useual prescriptions:

Mixture.—Aq. destil., 4 ozs.; Aq. flor. aurant., 1 dr.; Acidi tannici, 15 gr. ad. 1½ dr.; Syrupi, 1 oz. F. s. a. To be taken in tablespoonfuls hourly, or in two doses a couple of hours before the paroxysm.

Powders.—Acidi tannici, 1 dr. *Divide in chartulas* 8. Each powder to be taken in a wafer, in jelly, or dissolved in half a glass of sugar and water.

Syrup.—Syrupi, 16 ozs.; Aq. flor. aurant., 2 ozs.; Acidi tannici, 2 drs. F. s. a. Every ounce of this syrup contains about eight grains of tannin.

Enema.—Decocti hordei, 6 ozs.; Acidi tannici, ½ dr.; Vin. opii, 3 min. F. s. a. The addition of laudanum increases the chances of this enema being longer retained.—*Dublin Med. Press; Am. Jour. Med. Sciences; Am. Drug. Circular and Chem. Gazettee.*

CUBEBS IN SIMPLE URETHRITIS OF WOMEN.

Prof. Trousseau remarks that simple urethritis is a disease which is tolerably frequent in young girls, but more frequent in married women, and it is characterized by a frequent desire to make water, with vesical tenesmus lasting some minutes afterwards. Trousseau has known patients obliged to go to the

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water-closet ten or fifteen times in an hour, and after having passed a few drops of urine they went on straining for a minute or more, so imperious was the sensation of desiring to evacuate the bladder, which, however, was perfectly empty. In some cases it would appear that the inflammation is propagated to the mucous membrane of the bladder. Trousseau has never found this disease to assume a serious form, and it is seldom accompanied with fever, but there are often pains in the loins and hypogastrium analogous to those observed in cysitis and metritis. Urethritis is rather common after lying-in, after miscarriage, or at the period of menstruation, and in some cases it appears to be connected with an herpetic diathesis. Whatever may be the exact form of this disease, cubebs are successfully employed in its removal. Trousseau has employed this treatment for more than twenty years, and the use of cubebs was suggested by its efficacy in venereal blennorrhagia. In simple urethritis it is not necessary to give large doses of cubebes, and in general the powder may be prescribed in the dose of ʒss to ʒj. twice a day, at meals. It should be continued several days, and as long as the symptoms last; when improvement begins the cubebs are given only once a day for a week, and in the following week, if the improvement continues, the cubebs are given only once every second day.—*Brit. and For. Med.-Chir. Rev.*, Jan. 1862, from *Bult. Gén. de Thérap.*, July 15, 1861; *Am. Drug. Circular and Chem. Gazette.*

THE EFFECT OE DIFFERENT PAINTS ON THE ANIMAL ECONOMY.

(*From the French of M. Leclaire.*)

After experiments made upon animals placed in deal boxes a cubic metre in capacity, the interior of which had been painted, some with white lead paints, and others with zinc white, both of these substances having been rubbed up with essence of turpentine, M. Leclaire arrives at the following conclusions:

1. Animals do not suffer sensibly when a *current* of air is allowed to pass through the boxes;

2. The animals do suffer during the first twelve hours when the current of air is suppressed; but then they recover, and no one died in the course of the experiments;

3. No animal suffered when the painting was dry.

M. Leclaire concludes that emanations of oil of turpentine exhaled, from painting in apartments where currents of air are allowed to exist, are not dangerous either to the painters or the persons occupying these apartments; that painting when dry is not dangerous, even though there should be no current of air.

He has also observed that the vapors which exhale from painting with oil of turpentine, are absorbed by distilled water, and that they give rise to beautiful crystallizations. When the painting is dry no such absorption takesp lace. Chevreul says that when two capsules containing, the one water and the other essence of turpentine, are placed under a bell glass, crystals are produced par-

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fectly transparent, which are probably analogous with some of those of the hydrate of essence of turpentine noticed by Leclaire.

Leclaire has also noticed that during the drying of a painting made with lead or zinc and oil of poppies there is disengaged more vapors than when pure linseed oil, mixed with manganese, has been used, and that these vapors condensed in water, leave, after evaporation, a thick colored liquid, in the midst of which at times crystals are formed.—(*Journal de Chem. Med.*)—*Jour. and Trans. of Md. Coll. of Pharm.* L. H. S.

KINIC ACID IN COFFEE BEANS, AND ITS WIDE SPREAD EXISTENCE IN THE VEGETABLE KINGDOM.

The discovery by Zwenger of kinic acid in the shoots of the whortle-berry, gave rise to the supposition that this acid also existed in coffee, Stenhouse having by distilling an extract of coffee, prepared with milk of lime, together with oxide of manganese and sulphuric acid, obtained chinon.

Zwenger and Siebert have lately succeeded in extracting this acid from coffee by the same process adopted by Z. in operating on whortle-berry shoots for the same. The yield was 0, 3 per cent.

As according to Stenhouse the leaves of the coffee tree yield much larger quantities of chinon than the beans, it is tolerably certain that the former contain larger quantities of kinic acid. Stenhouse has furthermore obtained chinon by distilling various vegetable extracts, as that of Ligustrum vulgare, Hedera Helix, Quercus Ilex, Ulmus campestris, Traxinus excelsior, &c., with peroxide of manganese and sulphuric acid, and it is very probable that also in these cases the formation of chinon was owing to the presence of kinic acid in the plants.—(*Wittst. Viertelj., XI.* 97.)—*Jour. and Trans. of Md. Coll. of Pharm.* L. D.

NOTE ON A SOPHISTICATED PRECIPITATED CARBONATE OF IRON

(From the Journal and Transactions of the Maryland College of Pharmacy.)

Mr. Editor,—The following notes, which I made at the time, are at your disposal:

In preparing Muriated Tincture of Iron recently, I was much annoyed at the insolubility of the Prec. Carb. Iron, a new lot which I had just received. After a prolonged digestion of 3 ounces for five or six hours with the requisite amount of muriatic acid, I added an additional quantity of acid and continued the digestion several hours more.

A large amount apparently remained undissolved; allowing this to settle, and pouring of the clear solution, I threw the bulky sediment on a filter and washed with water thoroughly. When dried it resembled white clay, and weighed 1½ oz., which represents this moderate adulteration as 42 per cent. of the whole weight. But this was not all: upon evaporating the acid solution, together with the wash waters of the sediment, it became encrusted over with

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a crystalline mass; pouring off the now concentrated solution, and washing the crystals with cold water and drying, I obtained a further adulteration of 80 grains or nearly 6 per cent. of fine silky crystals, white, and resembling sulphate of quinine. Subjecting these impurities to appropriate tests, it is evident that the first mentioned insoluble residue is alumina, while the crystals are hydrated sulphate of lime deposited from the hot solution.

Can you inform us, Mr. Editor, by what ingenious process this lot of Prec. Carb. of Iron has been manufactured? for I imagine the whole compound has been thrown down together by some unscrupulous chemist, who was more concerned about the quantity than the quality of the article.

Yours, truly, W. H. Pile.

SYRUP OF PYROPHOSPHATE OF IRON.

By William A. Thompson.

When prepared from a solution of persulphate of iron, the citro-ammonical pyrophosphate in this preparation manifests a tendency to undergo a gradual change in color, from a reddish brown when first prepared to nearly or quite black when kept for any length of time. This change, though probably not injuring the preparation medicinally, is still objectionable on account of its unsightly appearance. I have found by experience that the above-mentioned tendency to change in color may be entirely obviated, by substituting pyrophosphate of the protoxide, which may be conveniently used in the dry state, and which is prepared as follows:

℞ Crystallized protosulphate of iron.....100 parts.
" pyrophosphate of soda.....110 parts.

Dissolve each salt separately in a sufficient quantity of hot water and mix the solutions: having washed the precipitate in the usual manner, dry it.

The syrup may be made by the following formula:

℞ Pyrophosphate of protoxide of iron.....224 grains.
Citric acid.....120 "
Water of ammonia.....180 minims.
Orange flower water.....f℥ i.
Simple syrup.....f℥ xxvii.

Rub the citric acid and pyrophosphate of iron together into a fine powder, then add the water of ammonia and orange flower water: when the solution is complete, mix it with the simple syrup. It will be observed that the syrup as above prepared corresponds in strength with that of Prof. Procter's formula, published in Am. Jour. Pharmacy, vol. 29, p. 404, but differs in containing the protosalt instead of the persalt of iron. Prepared as above, syrup of pyrophosphate of iron is of an olive green color and transparent when held between the eye and the light, but seems to possess considerable refractive power when viewed in other positions.—*Jour. and Trans. of Md. Coll. of Pharm.*

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VESICATING COLLODION.

In an elaborate paper communicated to the Pharmaceutical Society, Mr. Charles R. C. Tichborne proposes the following formula for this preparation:—

℞ Cantharides..... ℥ vj.
Ether from methylated spirits..... f℥ xiij or q. s.
Glacial acetic acid..... f℥ ij.
Gun cotton..... ℥ ss.
Methylated spirits of wine..... f℥ vij. or q. s.

The cantharides, coarsely powdered, are placed loosely in a displacement apparatus, the flow of which can be regulated by a tap; upon the cantharides is poured the ether and acetic acid previously mixed together; after the whole has passed through, it will be found that the *débris* has retained, by absorption, seven fluid ounces which must be displaced by the gradual addition of an equal bulk of methylated spirits. If properly managed, there is not the least danger of the admixture of the spirits with the percolated menstruum, as the animal substance of the flies swells considerably under the prolonged influence of the spirits of wine, so that the same bulk will be insufficient to quite displace the ether. The ethereal solution should be made to measure exactly f℥ xv. with a little spirit, and may then be converted into a collodion by the addition of the gun-cotton. The glacial acid plays a double part in this preparation. It dissolves the cantharadin, and at the same time gives to the collodion film the essential property of porosity. Ordinary collodion is useless as an excipient, for it produces a tough and contractile film which really screens the skin from the action of the greater part of the blistering material. The most effectual method of using the *collodium vesicans* is as follows:—The part upon which the blister is to be raised should be painted with vesicant to the desired extent, bearing in mind that the blister produced always extends to about one-tenth of an inch beyond the margin of the space covered. Care should be taken to give a coating of considerable thickness, and to insure this result the brush should be passed over and over again until about ʒ ss has been used to the square inch, or less when operating upon a tender epidermis. It is desirable to place over the intended blister a piece of oil silk, or what is still better, a piece of sheet gutta percha, somewhat larger than the surface painted, as this will stop the exhalations of the skin and so render it moist and permeable. In ten minutes, or a quarter of an hour if the cuticle is hard, the collodion should be wiped off with a little cotton-wool moistened with ether, when the blister will almost instantly rise.—*Chemist and Druggist.*

SUBSTITUTE FOR LAUREL-WATER.

Dr. Pile, of Philadelphia, has lately introduced a very delicate volumetric method for ascertaining the per-centage of prussic acid in distilled waters, oil of bitter almonds, &c.* In examining by this method various samples of *Aqua Lauro-Cerasi* he found that some contained scarcely a trace of prussic

* See Amer. Journ. of Pharm. for March.

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acid and were therefore worthless as medicines; while the proportion in the others varied from the minutest quantity up to the full average, which is about one-tenth of one per cent. In view of this great uncertainty, he calls attention to a substitute for the distilled cherry laurel-water, which he proposed several years, and which contains the proper proportion of prussic acid.

℞ Medicinal Prussic Acid.....f℥j.
Oil of Bitter Almonds.....min. ij.
Dissolved in
Alcohol.....℥ ij.
Distilled water, q. s.....ft. fl. ℥ iij.
—*Ibid.*

Editorial.

Prof. Charles A. Lee.—Among the passengers by the steamer for Europe, on the 26th ult., was Prof. Lee, who intends to spend some time abroad in visiting the medical institutions of Europe, and will probably extend his travels to Greece, Egypt, Palestine, &c. For the present, we are deprived of his valuable papers upon materia medica, but shall, we hope, have the pleasure of laying before our readers frequent communications from him.

Blue Flag.—At the request of our readers, we republish an article on Blue Flag. The use of this article in the form of Fluid Extract, as well as the active principle, Iridin, is increasing, because of its ascertained efficacy as an alterative in primary or secondary syphilis, and as an hydrogogue cathartic in dropsical affections, alone or in combination.

Monograph upon Gelseminum. *By Edward M. Hale, M. D., of Jonesville, Mich.*—This is the only monograph we have met upon this valuable plant, and contains much valuable matter, which (although all physicians may not agree with Dr. H. in all his conclusions) will repay a perusal. We have not time now to give it such a notice as we would like to do, and shall take it up at another time.

We may well congratulate the medical staff of the Army, and the profession of the United States, on the passage of the Medical Reform Bill through Congress. In multitudinous ways this deplorable war is destined to renovate our military as well as civil institutions, to place them on a firmer basis, and give them that scope and effectiveness essential to the discharge of the full measure of their duties. This war found the Medical Department of our Army with almost precisely the same organization that it has had for nearly fifty years, the army during that time rarely exceeding 17,000 men. Although the Department was capable of considerable expansion, it was quite impossible, with the small force at its command, to meet the immense demand suddenly made upon

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its resources. We do not here allude to material aid to our Army, for its power of obtaining supplies is, we believe, unlimited; but to that personal supervision of the details of the medical affairs of the army which alone could render its power effective. The defects in the Department were brought out in bold relief by the organization of a large army, and to none were they so palpable as to the Sanitary Commission, which has, by its well directed efforts, supplied those constant and pressing wants which the Department seemed powerless to meet. To the Sanitary Commission, the country owes a debt of gratitude, not less for its persistent and finally successful effort to reform the Medical Department, than for its ceaseless activity in supplying the necessities of the soldiers. The Department is now placed on a scientific basis, not inferior to that of England and France and from its reorganization we anticipate that efficiency which will so commend itself to the Government that no other changes will take place, other than such as will enlarge its powers of usefulness.

S. 188. AN ACT [To increase the efficiency of the medical dapartment of the army.] To reorganize and increase the efficiency of the medical apartment of the army.

March 11, 1862.—Read twice, and referred to the Committee on Military affairs.

March 12, 1862.—Reported back with an amendment in the nature of a substitute, ordered to be printed, and the further consideration postponed till Tuesday, the 18th instant.

AMENDMENT.—Strike out all after the enacting clause, and insert the following:—

That there shall be added to the present medical corps of the army ten surgeons and ten assistant surgeons, to be promoted and appointed under existing laws, twenty medical cadets, and as many hospital stewards as the surgeon general may consider necessary for the public service.

SEC. 2. *And be it further enacted*, That the surgeon general to be appointed under this act shall have the rank, pay, and emoluments of a brigadier general. There shall be one assistant surgeon general and one medical inspector general of hospitals, each with the rank, pay, and emoluments of a colonel of cavalry, and the medical inspector general shall have, under the direction of the surgeon general, the supervision of all that relates to the sanitary condition of the army, whether in transports, quarters, or camps, and of the hygiene, police, discipline, and efficiency of field and general hospitals, under such regulations as may hereafter be established.

SEC. 3. *And be it further enacted*, That there shall be eight medical inspectors, with the rank, pay, *and emoluments each of a lieutenant colonel of cavalry*, and who shall be charged with the duty of inspecting the sanitary condition of transports, quarters, and camps, of field and general hospitals, and who shall report to the medical inspector general, under such regulations as may be hereafter established, all circumstances relating to the sanitary condition and want of troops and of hospitals, and to the skill, efficiency, and good conduct of the officers and attendants connected with the med cal department.

SEC. 4. *And be it further enacted*, That the surgeon general, the assistant surgeon general, medical inspector general, and medical inspectors, shall immediately after the passage of this act be appointed by the President, by and with the advice and consent of the Senate, by selection from the regular medical corps of the army, without regard to their rank when so selected, but with sole regard to qualifications.

SEC. 5. *And be it further enacted*, That medical purveyors shall be charged

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under the direction of the surgeon general, with the selection and purchase of all medical supplies, including new standard preparations, and of all books, instruments, hospital stores, furniture, and other articles required for the sick and wounded of the army. In all cases of emergency they may provide such additional accommodations for the sick and wounded of the army, and may transport such medical supplies as circumstances may render necessary, under such regulation as may hereafter be established, and shall make prompt and immediate issues upon all special requisitions made upon them under such circumstances by medical officers; and the special requisitions shall consist simply of a list of the articles required, the quantities required, dated, and signed by the medical officers requiring them.

SEC. 6. *And be it further enacted*, That whenever the inspector general, or any one of the medical inspectors, shall report an officer of the medical corps as disqualified, by age or otherwise, for promotion to a higher grade, or unfitted for the performance of his professional duties, he shall be reported by the surgeon general for examination to a medical board, as provided by the seventeenth section of the act approved August third, eighteen hundred and sixty-one.

SEC. 7. *And be it further enacted*, That all acts or parts of acts inconsistent with the provisions of this act be, and the same are hereby, repealed.—*Amer. Med. Times.*

WE learn through the public prints that WILLIAM A. HAMMOND, M. D., has been *selected* by the PRESIDENT as SURGEON-GENERAL of the U. S. Army under the recent reorganization of the Medical Department. The profession will hear of the confirmation of this appointment with the most sincere gratification. No man could be selected, who so happily combines in his professional relations the confidence and esteem of both the Medical Staff of the army, and the profession of the country, as Dr. HAMMOND.

A native of Maryland, but long a resident of Pennsylvania, DR. HAMMOND entered the army as Assistant-Surgeon, June 29, 1849. He remained in the army until 1860, when he resigned his commission, and soon after accepted the chair of Anatomy and Physiology in the University of Maryland, Baltimore. He also became an associate editor of the Maryland *Medical Journal.* On the breaking out of the rebellion several of PROF. HAMMOND'S associates espoused the cause of the rebels, while PROF. H., true to his country, showed his active sympathy for her success in that dark hour of trial, by again entering the Regular Medical Staff.

During the first period of service on the Staff, DR. HAMMOND occupied important and most laborious positions on our frontier; and that he was an acute observer, an efficient officer, we have abundent evidences in the valuable reports which he communicated from time to time to the Medical Bureau, and which have since appeared in the Reports of that Department. His contributions to periodical medical literature were also numerous and valuable. To the profession at home and abroad DR. HAMMOND is best known by his physiological writings, which have placed him in the front rank of experimental physiologists. To our immediate readers he will be remembered as the author of a course of lectures on chancre, which appeared in the early numbers of the last volume of the MEDICAL TIMES, and which attracted much and deserved attention.

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If Dr. Hammond is now elevated to the responsible and honorable position of Head of the Medical Staff of our Army, we may believe he will have the cordial sympathy and support of his professional brethren, in both civil and military life.—*Amer. Med. Times.*

Army Surgeons.—The need of volunteers to the Surgical Staff of the Army to meet the emergencies which the destructive battles in different parts of the country now almost daily occasion, has led the Governors of many States to organize volunteer corps. In this State Gov. Morgan, with the aid of Surgeon-General Vanderpoel, has organized and commissioned an auxiliary corps, which is composed of the following gentlemen:—Drs. James R. Wood, Alfred C. Post, Ernest Krackowitzer, Stephen Smith, Charles D. Smith, George A. Peters, John O. Stone, Thaddeus M. Halstead, Willard Parker, Gurdon Buck, Lothar Voss, Thomas M. Markoe, and William Detmold, of New York City; Alden March, John Swinburne, and S. Oakley Vanderpoel, of Albany; Edward H. Parker, of Poughkeepsie; Charles Winne and S. B. Hunt, of Buffalo, and DeWitt C. Enos and Joseph C. Hutchinson, of Brooklyn.—*Buffalo Med. and Surg. Journal and Reporter.*

American Medical Association: Further Postponement.—We, the undersigned Committee of Arangements of the American Medical Association, after free consultation with officers and members in each important section of the country, acessible to the Committee, feel constrained to give notice to the profession, that the Regular Annual Meeting of the Association is further postponed until the first Tuesday in June, 1863.

Chicago, March 20, 1862.

N. S. Davis,
J. Bloodgood,
J. W. Freer,
H. W. Jones,
E. Andrews,
D. Laskie Miller,
Thomas Bevan.
} *Committee.*

We call the attention of our readers to the above notice. In our last number, we expressed the hope that the Association would hold its regular meeting in June next. But out of quite a large number of letters received from influential members of the Association, all but *two* advised a further postponement. Of course we cheerfully acquiesce in the decision of the Committee, founded as it appears to be, on the wishes of a majority of the profession. We hope and trust that another year will find all the obstacles to a truly great *national* meeting removed, and we shall have the pleasure of again seeing our brethren of the profession from Maine to Texas, assembled in cordial, scientific and social communion.—*Chicago Medical Examiner.*

Bound Volumes of the *Journal of Materia Medica* for 1859, 1860, and 1861, will be forwarded for $1 each, postage paid.

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THE

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Alteratives.

BY JOSEPH BATES, M. D.

Cephaelis Ipecacuanha.

This is a very small shrub, growing in Brazil, in thick and shady woods. It is not confined exclusively to Brazil, but found in other sections of South America.

Its root is perennial, from four to six inches in length, and about as large as a goosequill, simple, or divided, contorted; stem straight, one or two feet high, simple; leaves six or eight at the top of the stem, opposite, petiolate, oblong obovate, acute, entire, from three to four inches long, and from one to two broad; downy on their upper surface, and veined on the under. Petioles short, downy. At the base of each pair of leaves are deciduous stipules, embracing the stem, membranous at the base, and divided above into many bristle-like parts. Flowers white, very small, united in a capitulum looking apparently as the continuation of the stem, surrounded with a large involucrum; calix five-toothed; corolla infundibuliform, five-divided; five stamina; fruit ovoid, black, and containing two small whitish nuts, which are described as two small plano-convex seeds. It flowers during the months of January and February, and its fruit is ripened in May. The root, which is the officinal part, is usually collected during the flowering seasons by the Indians, though it is said to be equally good, when

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gathered before or after its inflorescence. It is principally imported from Rio Janeiro, Bahia, and Pernambuco in bags or bales. Ipecacuanha is imported in pieces from two to three lines in thickness, contorted, simple or branched, consisting of an interior slender, light straw-colored, ligneous cord, with a thick cortical covering, which presents on its surface a succession of circular, unequal, prominent rings or rugæ, separated by very narrow fissures frequently extending down to the central fibre. This appearance of the surface has given rise to the term annelē or annular, by which the true ipecacuanha is designated in the French works of pharmacy. The root is composed of a cortical part, the fracture of which is brown and resinous, and of a fibrous meditullum, of a yellowish color, less sapid and odorous. The woody part contains but little emetia, and is nearly worthless.

This agent yields its properties to water, but more perfectly to alcohol and ether. Boiling is said to impair its virtues.

EDWARDS and VAVASSEUR remark, that "Ipecacuanha, administered in moderate doses, acts on the stomach, the mucous membrane of which is more or less violently irritated by it, and induces vomiting, and sometimes alvine evacuations; but besides this action, it possesses some very decided stimulant and tonic properties, which seem especially to influence the pulmonary organs. This circumstance is principally observable when it is administered in small doses, so as not to produce vomiting. Finally, in very large doses, the effects of this substance seems to be spent on the brain, and produces a great drowsiness of shorter or longer duration. It is most frequently administered in order to provoke vomiting; but it is less certain than tartar emetic; there are circumstances, however, in which it is preferable. It has been highly recommended in the treatment of dysentery, croup, and puerperal peritonitis. In this latter disease, it is administered principally when, by means of more or less considerable blood-letting, we have succeeded in diminishing the intensity of the inflammatory symptoms; and although it is far from possessing all the virtues which were ascribed to it, it may nevertheless be useful under many circumstances. Ipecacuanha is given likewise in alterative doses to revive the action of the stomach, and stimulate the mucous membrane of the bronchiæ in certain pulmonary catarrhs, hooping-cough, etc."

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The tonic and stimulant properties here ascribed to this agent, are to be regarded as its alterative virtues.

The active properties of Ipecacuanha depend upon a principle called emetina, and which exists in the proportion of about sixteen per cent. in the dried root.

In its purest form it is a white pulverulent substance, inodorous and nearly tasteless. When impure it has a grayish-yellow color, and is somewhat bitter. In alcohol it is soluble, and but sparingly so in water, ether, or oils. The officinal preparations I shall quote from Dr. STILLE'S Therapeutics and Materia Medica, which are as follows:—

"Pulvis Ipecacuanhæ et Opii.—Powder of Ipecacuanha and Opium; Compound Powder of Ipecacuanha; Dover's Powder. This admirable medicine is made by rubbing together of powdered opium and ipecacuanha a dram each, and of sulphate of potassa an ounce. Ten grains of the powder contain one grain of opium.

"Syrupus Ipecacuanhæ.—Syrup of Ipecacuanha. To make this syrup, a tincture is first prepared by macerating an ounce of coarsely powdered ipecacuanha with alcohol in a percolator, and filtering from it a pint of liquid, which is then evaporated to six fluid ounces, adding sufficient water to make a pint, and with two pounds and a half of sugar preparing a syrup. Its dose as an emetic, for an infant under a year old, is about half a fluidrachm; for an adult, one or two ounces. As an expectorant, to a child a year old, five or ten minims may be given, and to an adult a fluidrachm.

"Trochisci Ipecacuanhæ.—Troches of Ipecacuanha. These are prepared with powdered ipecacuanha, sugar, arrowroot, and tragacanth mucilage. Each contains about a quarter of a grain of ipecacuanha. Morphia may be added, in proportion of one fortieth of a grain to each troche.

"Vinum Ipecacuanhæ.—Wine of Ipecacuanha. This preparation may be made by macerating two ounces of bruised ipecacuanha in two pints of sherry wine for fourteen days, or more speedily by percolation. It is a mild and convenient preparation, more suitable for feeble persons than antimonial wine. As an emetic it may be administered to an adult in the dose of one fluidounce; and in the dose of a fluidrachm, properly diluted, to a child a year old. As an expectorant or diaphoretic its dose is from ten to twenty minims."

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History.—Ipecacuanha has been described under a variety of names. LINNÆUS thought it belonged to the genus Viola, and therefore, designated it as Viola ipecacuanha. The younger LINNÆUS put it down under Psychotria emetica, and this was long erroneously considered as the source of the true ipecacuanha. BROTEO called it Callicocca ipecacuanha.

PISO, in 1672, published an account of this agent, and its efficacy in the dysentery of Brazil. It was generally known throughout Europe in 1672. HELVETIUS wrote a special treatise upon the use of this medicine in the treatment of diarrhœa and dysentery. Some years afterwards, its value was recognized in Germany by LEIBNITZ, VALENTINI, and WEDEL, and in England by Sir HANS SLOANE and BAGLIVI.

It was for many years used in the south of Europe as a secret remedy, and with such success, that even courtiers, and the son of Louis XIV., were treated successfully with this new remedy. At Hôtel Dieu, this plant was used as a nostrum, with such triumphant success, that a thousand louis d'or were paid for a knowledge of its composition. The individual who made known this plant, was subsequently decorated with titles, and raised to the highest medical dignities of France.

Powdered ipecacuanha, applied to the skin deprived of its epidermis, occasions pain and inflammation, if incorporated with fat or oil, and used by friction, it produces severe irritation. Dr. TURNBULL imagined that the pulse was lowered as an effect of this application. Plasters of diachylon, or Burgundy pitch, sprinkled with the powder of ipecacuanha will produce an eruption. Frictions with its ointment viz., ℞. Pul. ipecacuanha ʒij; ol. olivæ ʒij; adipis ʒiv.—M. will occasion the same result.

JOHN KING, M. D., in his Dispensatory (published 1854) says, "recently, a liniment of this root has been introduced into practice, for the treatment of incipient phthisis, certain rheumatic affections, chronic hydrocephalus, chronic inflammation of the synovial membrane of the knee, and infantile convulsions. As soon as the pustular eruption appears, the symptoms improve more or less rapidly, until a cure is effected. It is made of powdered epicacuanha, sweet oil, of each, two drams, lard half an ounce; mix them well together. To be rubbed into the part affected, fifteen or twenty minutes at a time, and to be repeated

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three or four times daily, covering the part after each rubbing with flannel; in from 24 to 48 hours the eruption appears. It is stated that an infusion of two drams of ipecacuanha in a gill of hot water, and strained, will, if drank warm, prove emetic; then if the same quantity of hot water is again added to the residue, strained, and drank cold, it will prove purgative, and the same process repeated the third time, and used cold, becomes a valuable tonic." The same author remarks, that "Emetia, the active principle of this drug, is so severe and uncertain in its action, that it is not used in medicine. Two grains of it will kill a large dog. A sixteenth of a grain vomited an old man severely."

The effects of inhalation, I shall mention as recorded by Dr. STILLE. "When the dried root of ipecacuanha is pulverized in a mortar, the fine particles which become diffused through the air sometimes cause a swelling and inflammation of the eyes and face, and irritate the mucous membrane of the respiratory passages, causing epistaxis, sore throat, dyspnœa, and even hæmoptysis. The case is mentioned of an apothecary's wife, who, as often as the root was powdered in her husband's shop, was seized with spasmodic asthma. The following case is quoted by WIBMER. A man while powdering ipecacuanha, removed from his face, during the space of three hours, the veil which he was provided with for his protection. He was seized with vomiting and constriction of the chest, and, after the lapse of an hour, had spasms of the throat and glottis, and his face was of an ashy paleness. Depletion and antispasmodic medicines relieved these symptoms, but in the course of a few hours they returned again, although less violently. For some days afterwards he suffered from fits of dyspnœa."

M. TROUSSEAU states that he knew of two apothecaries who were seized with a fit of dyspnœa whenever the bottle of ipecacuanha in their shop was opened. The author is acquainted with a physician in his vicinity, who has to protect his mouth and nose, whenever he deals out a particle of this medicine, otherwise he suffers for hours the consequence,—which is spasmodic asthma.

From the Dublin Journal. Tasteless form of Ipecacuanha. When it is desirable to administer this remedy to children, or persons to whom the ipecac. wine is odious, as is often the case, the following form will be found to answer: ℞. Bruised root of ipecac. ʒ ss; boiling water enough to make ℥ iss; lemon syrup ℥ ss. A twentieth part every third hour.

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In the Western Journal of Medicine and Surgery, Dr. F. ROBERTSON, of Nashville, Tenn., has published an account of this drug upon himself. Previously to the attacks, which he describes, he had been in the habit of handling and using it without the slightest inconvenience. But once while putting up a dose of the medecine, he was suddenly and violently attacked with asthma and oppression at the præcordia. He attributed the new sensibility to weakness produced by fatigue. Two years afterwards a still more violent paroxysm was occasioned by a dose of the wine of ipecacuanha. It was attended with an intense burning sensation in the fauces and in the lungs. After the paroxysms of dyspnœa, and when expectoration became free again, a large quantity of sputa was rejected, "which any person at first sight would have pronounced to be a mass of small nearly transparent worms." These bodies were no doubt formed of concrete mucus or fibrin moulded in the smaller air tubes. This account of Dr. ROBERTSON was circulated in the Journal alluded to, and fell under the eye of URIAH TURNER, M.D., who published an article in the Boston Medical and Surgical Journal, shortly after, relative to the effects of this agent upon himself. It may be found as follows in Vol. 29, p. 229. "I inherited from my mother's family, with a slender constitution, a strongly marked nervous temperament; and with advancing years, dyspepsia, with its long train of attendants, developed itself, but without any disorder of the respiratory organs until my 25th year. Late in the autumn of 1822, while attending medical lectures, I was seized, after a night of exposure, with a pretty severe pneumonia, which confined me about two weeks. Under the care of the venerable Prof. NATHAN SMITH, I was treated principally with antimonials, bleeding being deemed unnecessary; and after my recovery, which was rapid, my health continued as formally, until the spring following, when I commenced the practice of medicine in Litchfield Co., Conn. During the spring and summer I had repeated and severe attacks of spasmodic asthma; arising, as I then supposed, from the exposure incident to my employment, acting on my lungs, rendered susceptible by the previous pneumonic attack. The paroxysms usually came on suddenly, preceded by tickling in the nostrils, and sneezing, and continued from three days to three weeks, during which I was unable to remain in a recumbent position. Dur-

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ing a paroxysm, the dyspeptic symptoms were usually mitigated considerably.

"In the autumn following, more than six months from the first attack, I was led for the first time, by mere accident, to attribute these asthmatic paroxysms to the irritating properties of ipecac. when enhaled, having never read or heard of anything to guide my investigations. I was in the habit of using ipecacuanha freely in my practice, both alone and in combination, which, like most country practitioners, I carried with me and dealt out at the bedside. Having occasion, during a violent storm, to visit a patient who could not afford the light of a candle, I was obliged to make use of the floor for a table, and 'the fire fair blazing' for a lamp, and in the course of this awkward operation, a large paper of specac. was broken open, and scattered freely through the room. After the usual preliminaries of sneezing, &c., I found myself laboring under an unusually sevese paroxysm of asthma, which, as formerly, I attributed to the inclemency of the weather; but while pursuing my lonely way homeward, amid the pelting of the storm, leaning forward in the carriage in order to breathe, and obliged to trust my horse to his own discretion, I became suddenly sensible of smelling and tasting ipecac., with a slight degree of nausea, and before I reached my residence, the truth flashed across my mind that all my sufferings might have been caused by this drug. My attention once properly directed, I soon established the fact beyond all doubt by actual and painful experiment, yet so new and singular was the fact, that it was a long period before I could convince myself that a single grain floating in the atmosphere of an ordinary room, was capable of inducing a violent paroxysm of asthma, continuing weeks, preventing a recumbent position, reducing the strength as rapidly as an ordinary fever, and only terminating by cough and expectoration. Ipecacuanha being so constantly required in practice, I attempted every means to handle it with safety—using extreme care, covering my mouth, &c.; but with all these precautions, accident or haste rendered them not unfrequently unavailing. A bit of paper in which a Dover's powder had been wrapped, stepping into a physician's office, or even coming in contact with his clothing, might and often did cause a paroxysm sufficient to arrest me in the midst of my business, and to render my services at all times precarious; although

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for years I kept the article in a separate closet, and in no case presumed to handle it myself.

"Such are some of the effects of inhaling the powder of ipecacuanha—one of our mildest and most useful remedies—effects essentially different from that of any other article with which I have ever come in contact. The flumes of burning sulphur often produce a sudden dyspnœa, but it continues only a few minutes, and in severity bears no comparison to that resulting from ipecacuanha. Early in the spring of 1825 I took half a dram of powdered ipecac. root, in tepid water, taking the precaution to have it weighed and mixed in a part of the house remote from my own room, not dreaming that any other form than dry powder would effect my breathing. Sad mistake! showing conclusively that the peculiar deleterious effect of this drug depends on an idiosyncrasy, and is in no way related to that usually produced on asthmatics by dust, feathers, &c." This account of Dr. TURNER'S, is interesting, and lengthy for this occasion, and I shall omit his remarks, and insert but a small part of his subsequent discourse.

On two occasions Dr. T. took a single laxative pill, without being aware that each contained about a grain of ipecac.; yet in both instances, after an interval of a few hours, a severe paroxysm of asthma followed, and continued several days. The Dr. obtained some mitigation from his suffering by taking a large dose of morphine or chloric ether at the commencement of a paroxysm. Smoking tobacco freely had a similar effect, while smoking the stramonium root seemed rather injurious. On two exposures to ipecac., the muscles of respiration seemed tetanically convulsed, producing a condition not unlike what is denominated "holding the breath," with slight sighs or catches at intervals barely sufficient to keep the wheels of life from ceasing altogether. In the first instance relief was obtained by swallowing two drams of eth. sulph. In the other, where the interrupted breathing had continued fearfully long, and swallowing impossible, inhaling the fumes of burning paper previously saturated with nitras potass., alleviated the symptoms instantaneously. The author would not burn paper thus saturated, for the relief of asthma; but would put a quantity of nit. potass. on a dish of burning coals, thus the fumes of the paper are avoided.

Dr. T. concludes his very able paper by saying that all asth-

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matics are liable to suffer from coming in contact with, or in any way using ipecac; and he thinks that physicians cannot be too cautious how they prescribe it for patients having the least tendency to asthma, as distressing and even fatal effects may follow its administration.

Dr. ASHBEL PATTERSON has published in the Boston Journal of Med. and Sur., Vol. 29, p. 411, an interesting communication relative to asthma caused by ipecacuanha, in his own person. His account corroborates most of those statesments of Dr. R. In the same Vol. p. 460, it is stated that the late Dr. ASPINWALL, of Brookline, was so injuriously affected by the effluvia arising from ipecac. that he discarded it entirely from his practice, for some years before his death.

Dr. F. W. SHERRIFF, of Huntington, Canada, has furnished in his own case an instance of acquired susceptibility to the action of this plant. Dr. S. remarks that he has no doubt that his idiosyncrasy to this article has been caused by measles. Previous to having this disease, he often took large doses of this drug, and had been in the constant practice of preparing it pharmaceutically, without the slightest injury or inconvenience. He learned from reading the article "Asthma," in the Cyclopœdia of Practical Medicine, for the first time, that ipecacuanha frequently induced a similar affection to his own sufferings. The account he gives of his symptoms, corresponds with that published by others.

Dr. HYDE SALTER has published, in Braithwaite's, Part 38, p. 56, an account of his success in the treatment of asthma with ipecacuanha; he regards it as one of our best medicinal agents for such patients.

In the same work, p. 86, is recorded the treatment of dysentery by the administration of large doses of ipecacuanha, by E. S. DOCKER, Esq., Surgeon to the 2nd Battalion of the 7th Royal Fusiliers. He was stationed on the island of Mauritius for nearly six years, and had ample opportunity of becoming acquainted with dysentery; which frequently prevails in that island in a very severe and fatal form. He says that his treatment was very unsuccessful, till he made trial of the powdered root of ipecacuanha in large doses. He remarks that he has tested this medicine in cases of every kind and degree. Out of upwards of fifty cases of dysentery he lost but one (in former years the mortality ranged

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from ten to eighteen per cent.); and in the instance in question, death was caused by abscess in the liver; the primary disease having been thoroughly cured. He was at one time in the habit of prescribing ipecacuanha in the small doses recommended by Mr. TWINING, but found it ineffective in all cases of great severity. He gave it in doses ranging from ten to ninety grains; rarely less than twenty. The larger quantity was given in urgent cases only, the ordinary dose being a scruple or half a dram. He says the action of these large doses is certain, speedy, and complete; and truly surprising are sometimes their effects. In no single instance has failure attended this medicine, thus employed. In the very worst cases, when the strength of the patient is almost exhausted, after the whole range of remedies has been tried in vain, the disease running its course swiftly and surely to a fatal issue, ninety grains of ipecacuanha have been given, and forthwith the character of the disease, or rather, the character of the symptoms, has been entirely changed. He maintains that there is less disposition to relapse, so common in acute dysentery. He even observes that he has not witnessed a relapse in any instance where the treatment has been large doses of ipecacuanha. He begins the treatment of dysentery, in most cases, with an emetic—always with a thorough clearance of the bowels.

From the British American Journal, (Vol. 3, p. 17,) I copy the following:—Dr. R. W. CUNNINGHAM, of Lucknow, reports on the treatment of dysentery by ipecacuanha, after the plan advocated by Surgeon DOCKER, previously noticed at some length in the "Medical Times." He thinks by waiting an hour after giving the tr. opii, the ipecacuanha is retained longer, and produces a much more powerful effect. His success and confidence in the remedy fully corresponds with what has already been reported. He regards the ipecacuanha as producing the same relaxing effect upon the mucous membrane of the bowels, that it does upon the system at large, producing a copious flow of secretions from that membrane, releaving it from the tension caused by the congestion and effusion of lymph, thereby preventing destruction of tissue and ulceration; the nausea overcoming the spasmodic action of the muscular coat, sufficient cathartic effect is produced, which, though it may continne for days, is mild, and neither constipates nor debilitates the bowels after it has ceased. Of all his cases not one

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had a relapse. He recognizes the advantages of this method in the hands of the Army Surgeon, viz.: that the patient is under treatment from the commencement of the disease, the period to which this remedy seems best adapted.—*Ed. Med. Jour.*

COPELAND speaks highly of the use of ippecacuanh in dysentery.

In Braithwaite's, Part 29, p. 104. Dr. GEO. BUDD has given some very good hints on the different medicines used in cases of dyspepsia. Ipecacuanha, he says, increase the secretions of the stomach, and is to be taken before meals in cases of slow digestion. (DANBENTON was one of the first to point this out.) D. is careful in stating that the cases in which ipecacuanha is useful, are where digestion is slow;—where the food lies heavy on the stomach, and there is an inability for mental or bodily exertion for some time after meals. He believes that this agent owes its efficacy in such cases to its exciting peristaltic action in the stomach, and imparting an energy to its glands. In such cases, no doubt, we secure its alterative effect. Dr. BUDD says, that he has used ipecacuanha as a remedy for indigestion for several years, and believes that there is no other medicine we know of so effectual in removing uneasiness and sense of oppression after meals, and the various other evils that result from slow indigestion.

EDWARD IRNNER COXE, M. D., New Orleans, has published some practical remarks upon Ipecacuanha in the Boston Med. and Surg. Journal, Vol. 43, p. 316.

In dysentery, he says, Ipecacuanha has been and continues to be much used. He quotes MOSELY, who held it in high repute, and gave it in doses of half a dram to two scruples; he also mentions the late Prof. B. S. BARTON by whom it was regarded as almost a specific, particularly in cases of a typhoid character. In chronic diarrhœa, small doses of the powder repeated several times a day, either alone or preferably in conjunction with Opium or Dover's powder, will be found of great value, and frequently, with strict attention to a proper regimen, will succeed in curing many most unpromising cases. Dr. COXE advocates the use of ipecacuanha in large doses, in hæmorrhage from the stomach. Dr. CONDIE has recommended the same treatment. It is recommended in the early stages of bowel affection of children, no less than in adults, that an emetic of ipecacuanha should be administered, as

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it often arrests the progress of the disease, and rarely fails to prove beneficial. Dr. COXE's paper upon Ipecacuanha, with a formula for the syrup may also be found in Braithwaite's Part, 23, p. 299.

The quantity requisite to produce an emetic operation cannot be definately stated, as has been said by Dr. STILLE.

In 1744—5, Dr. SAMUEL PYE published a list of nearly three hundred persons to whom he had administered ipecacuanha, together with its dose, and the effects produced by it. The average quantity which he gave was only two grains, yet it generally caused vomiting three or four times, and sometimes more. In about twenty of the cases it occasioned several stools besides.

CULLEN taught that the powder "to the quantity of a grain, or perhaps less, in many persons can hardly be given without exciting nausea and perhaps vomiting." "In small doses," he adds, "that do not excite vomiting, it pretty certainly acts upon the intestines." The ordinary practice of directing twenty grains as the emetic dose of ipecacuanha (Dr. STILLE thinks) sufficiently shows that the experience of physicians generally has proved the inertness of such quantities as were used by CULLEN and PYE, or else that the powers of the drug have been greatly underrated. Some writers of the Italian school advocate the use of this agent as a counter-poison to opium, which they regard as a stimulant, and they cite cases in which, without prodncing any evacuation, it has dissipated the phenomena of narcotism.

This agent is valuable in the treatment of acute bronchitis, given in half grain doses every hour. It is thought, by many, to be one of the safest and most efficient remedies in suffocative catarrh, and may be used either in old age or infancy. Many writers of distinction, ascribe valuable hæmostatic properties to this medicine. One of the earliest of these, is MANGETUS, who by giving a dram dose of the medicine arrested an alarming hemorrhage from the womb, which was connected with abortion.

Dr. OSBORNE of Dublin, says that the treatment of simple menorrhagia by ipecacuanha, has never yet failed in his hands, and that he has also found it successful in epistaxis. FRANK has published cases of its success in hæmoptysis and menorrhagia. M. TROUSSEAU has several times used it with success in uterine hemorrhage after childbirth. He also found it to arrest an obstinate hæmoptysis in a female. The discharge of blood had continued,

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in spite of a variety of measures, for eighteen months, when ipecacuanha was administered, and the hemorrhage was suspended for three months.

M. HIGGINBOTTOM employed it with striking advantage in several cases of flooding after delivery, and when the exhaustion of the patient was such as to threaten speedy dissolution.

BERGIGNS relates a case of violent uterine hæmorrhage, which was successfully treated by giving half a grain of this drug every half hour.

Ipecacuanha has been given successfully for the bites of venomous animals. A case is mentioned in Braithwaite's, Part 16, p. 331, by COLLETT, as follows:—"(A little girl was bitten by a centiped; after the usual remedies, oil, spirits, laudanum, ammonia, had been exhausted without relief to the pain,) I fetched a bottle of ipecacuanha from the chest, and gave it to the mother to apply locally, at the same time telling her that I had not the slightest faith in the remedy; but to my surprise and delight she came out of her cabin in two minutes to tell me it had stopped the pain instantly. I requested her to re-apply it if necessary. The pain returned once, when it again immediately and entirely relieved it."

COPLAND recommends ipecacuanha in small doses for the cure of indigestion, and says that it often proves a very efficacious remedy for heartburn, which is a common symptom of this malady,—Emetia [or Emetina]. The active principle, or alkaloid of ipecacuanha, whether taken into the stomach or applied to a wound occasioned, in the experiments of MAGENDIE, death after some hours, preceded by vomiting and coma, the lungs and stomach being found inflamed.

The much celebrated MAUNOIR of Geneva, regards ipecacuanha as the remedy most to be relied upon in the treatment of puerperal fever—a faith formed on repeated experience in an extensive practice. Among the older authors, WILLIS, WHITE, and A. PETT were advocates for its employment. OSIANDER and HUFFLAND in Germany; RECAMIER, CLIET, TOMELLE, and DESORMEAUX in France, have all borne testimony to the signal benefits derived frome the ipecacuanha as an emetic in puerperal fevers. COPLAND remarks: "When it is considered that puerperal fevers are often cured, or alleviated, by copious spontaneous perspiration, or by purging and vomiting, we ought not to wonder at the success of

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an agent like ipecacuanha, which is capable of producing, and usually does produce all these effects at once."

Ammonia is said to increase the emetic power of this remedy. Its emetic quality is said by Dr. IRVINE to be counteracted by the acetous acid.

PARIS remarks, "that the primary effect of this medicine is that of stimulating the stomach, and it is equally obvious that its secondary ones depend on the numerous sympathies of other parts with the organs of digestion. The action of this remedy upon the pulmonary organs is extremely interesting;" he adds, "it would seem that in certain conditions of these orgons, attended with a dry, hard cough, it promotes expectoration, while in affections attended with an inordinate secretion of mucus, it as certainly represses it, and acts the part of an astringent." Relative to his closing remark, I would suggest, that it acts the part of an alterative.

Podophyllin.

By SAMUEL R. PERCY, M. D.

Physiological Effects.—I am not aware that any physiological experiments that have been published have been performed on animals, either with the podophyllum root or with the resin. I have performed some few experiments on animals, but mostly to ascertain the purgative effects of the resin. With the fresh root I have tried no experiments either on man or animals, but from the descriptions found in the books, and from the relation of some few cases to me, it seems to produce great irritation of the intestinal canal, gripings, prostrating emesis, and catharsis, an irritable and frequent pulse, and profuse salivation. These irritant effects are produced by a volatile principle existing in the green plant and root, which is mostly dissipated on drying. The effect of the green root or plant, or the fresh decoction of them, upon the mouth and salivary glands, resembles in a mild degree that of the Arum triphyllum, and the profuse salivation produced is principally the effect of the local stimulation, for salivation is but very slightly induced by the dried root or resin, unless it is given to its ematic effect; then it acts as emetics in general, and freely increases the secretion of saliva. It has been so frequently asserted that podophyllin produces salivation that I have taken much pains to ascertain its action in this respect, and I found when given in pills or capsules in small and frequently repeated doses, or in one large dose, that it has no persistent sialagogue action, and no effect like mercury, producing soreness of the gums,

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fœtor of the breath, and profuse and continued secretion of saliva. As I before stated, when given to its nauseant or emetic effect, it always induced a free secretion of saliva, but as its emetic action passes off so does its sialagogue action also. But if the resin is given in powder, so that it produces a local stimulation upon the glands, I have seen abundant secretion of saliva for one or two hours. In this way it is merely a topical irritant, not a true sialagogue. There are no means of ascertaining whether the resin when passed into the stomach in capsules can be detected in the saliva, but that it exists in the saliva, when administered by the mouth in powder, there can be little doubt, for the resin is soluble in the saliva.

Of the commercial podophyllin I have given two grains to a dog; in eight hours it had produced three free alvine evacuations. The same dose was repeated the next day, and it acted on the bowels in three hours, and during the day caused more than a dozen evacuations. To the same dog I administered by hypodermic injection, under the skin of the leg, one grain of podophyllin dissolved in liquor potassæ. It produced great local irritation, free purging in two hours and twenty minutes, evident colicky pain, and much tenesmus, with retching, but no vomiting.

To a man suffering with constipation of the bowels I have sprinkled two grains of the resin in fine powder over a large indolent ulcer. It caused a great pain in the ulcer, free catharsis in six hours, with nausea and severe griping pain. Within twenty-four hours it acted on the bowels seven times. The appearance of the ulcer was improved by the application.

Podophyllin, when administered to a person in health, is an efficient and certain cathartic; slow in its operation if administered in proper medicinal doses, but if administered in large doses quick and violent in its action, causing nausea, vomiting, and repeated and painful purging of mucous and bilious matters. When taken in powder in moderate doses it is not very disagreeable when first put into the mouth, but as soon as the saliva dissolves a portion of it becomes disagreeably bitter and nauseous, and the sensation it leaves in the mouth and fauces is quite unpleasant: when taken in this way there is a free secretion of saliva for some time. When I have taken the powder finely rubbed up with sugar in this way there is no sensation experienced in the stomach for an hour or more, excepting the first sensation of nausea from the disagreeable taste. In about an hour, if it has been taken fasting, there is an uneasy feeling in the stomach, accompanied with nausea and free salivation. This lasts for about an hour, and it feels as though a large secretion of gastric fluid was being poured out, and the stomach feels as if in a state of commotion. Soon the influence is felt in the small intestines, and unmistakable sensations of the secretion of bile are experienced. In this stage of operation it produces on me exactly the same sensations as I experience from a full dose of calomel. The influence continues to be felt through the whole length of the intestines, producing active peristaltic motions, and the sensation as though acrid bile was freely passing. In about five hours one grain will purge me quite freely, and this is followed within two hours by two or three free bilious

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evacuations, producing upon me the same sensations and the same bilious-appearing alvine evacuations that I experience from the same proportionate dose of calomel. In this dose it does not gripe nor produce much tenesmus, but during the whole time of its passing through the intestines there is an unmistakable sensation of a dose of medicine producing a cholagogue effect within. If the same dose (one grain) is taken immediately after eating, and protected in any way so that it does not touch the mouth, no effects whatever are felt from it for two or three hours; then the effects in the intestines above described are experienced in a very modified degree, and the result will be one copius pultaceous evacuation. The after effects in both instances are an increase in appetite, and a feeling of better health. Most persons will require a rather larger dose of the commercial article than this, and many can take three grains.

Therapeutical Effects.—Podophyllin was first and most largely used by the "Eclectics," and many of them have written intelligently upon its therapeutic applications. By the Eclectics it has been called Vegetable Mercury, and its use has been recommended in all diseases in which mercury has been found to be of service. To a certain extent, and in some of its effects, it certainly does much resemble that drug.

Its greatest use is in that class of diseases usually called bilious disorders; that is, in those disorders where the whole digestive organs are deranged. In these disorders a dose of one, two, or three grains of the commercial podophillin will be found to excite the secretion of all the abdominal organs, acting as an efficient purgative by this increased secretion. The largest number of patients whom we are called upon to treat are suffering more or less from these disorders, and it has undoubtedly been too much the case to give some mercurial for their relief. In these disorders podophyllin, combined in the manner we shall hereafter describe, is fully as efficient to cause a free secretion from the intestinal mucous membrane, and from the liver and pancreas, as any of the preparations of mercury, and it is infinitely safer. There is a very grave accusation made against our Militia Army Surgeons for using too much blue pill and calomel in these disorders, and although the accusation is an unjust one against the majority of the surgeons there are undoubtedly some against whom it is too true. Our soldiers, who are so much exposed, should not use mercurials if it can be possibly avoided, and this artical will, if properly given in these disorders, have a more beneficial effect, and will produce none of the evil consequences of mercury. There is but one drawback to its use, that is the inability of the patient being upon duty for ten to twenty hours after taking it owing to the nausea and tormina it produces if given in a full dose. In some of the forms of hepatitis it is of great value, and causes a full secretion of bile, but as this is not the only indication in the acute form of the disease it cannot be relied upon to check the inflammation. In chronic hepatitis I have found it of very great service, acting better than any other remedy I am acquainted with as it relieves the portal circulation by its action on the secernents. In this disorder it is not necessary, in fact it is frequently in-

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jurious, to give it in large and powerfully cathartic doses; I have found it better to give it in small and frequently repeated doses upon an empty stomach, sometimes combined with veratrum or hydorcyanic acid, at other times with strychnia or capsicum. The amount of bile and intestinal mucous secretion carried off by treatment of this description is sometimes enormous.

There are few diseases in which it is of more service than habitual constipation. In this disease small doses taken with the meals (frequently in combination with strychnia and capsicum) will in the majority of instances relieve the disorder within two weeks. It needs but proper graduation to give it in just the proper proportion.

From its thorough action upon the whole intestinal mucous surface, and upon the large glands, it is one of the best eliminants in infantile convulsions. For the same reason it advantageously follows the use of anthelmintics.

But as from the experiments I have made with it I will endeavor to give its mode of action, I would rather leave its application in diseases to your own judgment. If you know its physiological and therapeutical action, you can apply it intelligently in the treatment of diseases.—*Am. Med. Times.*

Essential Oil of Matico, whether Pure, or Combined with Balsam of Copaiva, in the Treatment of Gonorrhœa.

Dr. A. Favrot has communicated to *l' Union Médicale*, an article on the use of Matico in blennorrhœa.

Matico (*piper angustifolium*) is a South American pepper-plant (lentisk), first introduced into France by Mr. Dorvault, at the time of the London Exhibition, when it was presented as a powerful astringent, and an excellent anti-hemorrhagic, and the various formulæ given by its importer all agreed with these properties. At present preparations of matico are largely employed in *materia medica.* In 1855, the decoction of leaver of matico, administered internally by English physicians, having given good results in cases of gleet, I was induced to make some experiments with it. Matico has, however, long been used in Peru in analogous cases; thus in the *Medical Flora*, published in that country, we read in Vol. I., page 28, the following remark: *Incolæ ad gonorrhœas et ulcera cancrosa a lue venerea ortas exterpeńdas, decoctum affatim hauriunt.* In another direction, Mr. Grimault, the successor of Dorvault, in continuing the researches of his predecessor, acquired the certainty that matico owed its properties to the large quantities of essential oil contained in it, and which has not been turned to account in the majority of the preparations hitherto employed. Having obtained a certain quantity of this essential oil, he had capsules prepared with it, and, at my desire, intrusted me with their trial. I had already employed matico in the form of decoctions, injections, and extracts, effecting a cure in some cases, and failing in others, and being confident in these data, I placed great reliance in the employment of the essential

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oil. The results were, in fact, most satisfactory; but the diuretic action was so strong, that this medication, notwithstanding its advantages, still offered serious drawbacks.

Finally, by dint of essaying and experimenting, we succeeded in obtaining a preparation, which appeared to be perfect, by combining the essential oil of matico with balsam of copaiva, in the following proportions:

Balsam of copaiva,.....100 grains.
Essence of matico,.....5 grains.
Magnesia,.....q. s.

for 100 pills, coated with gluten upon Raquin's process. Each of these pills contains one grain of the balsam of copaiva and 5-100ths of a grain of the essential oil, representing fifty grains of matico employed. In this combination the copaiva completely loses its characteristic taste, and by the addition of this essence, which is somewhat similar to the essence of peppermint, I remarked not only that the capsules thus composed were more active than the capsules known as Raquin's and Mothes', but further, that they never occasioned unpleasant eructations.

I have treated acute and chronic blennorrhœa with this preparation during nearly four years, and I am at present strictly certain of its efficacy. I will divide my observations into two classes: acute and chronic; the local mode of treatment sufficing for the first category, requires the injection of the capsules; the second, the local treatment, is effected by injections of water distilled from saturated matico, which Mr. Grimault prepares in the following proportions:

Matico,.....One pound.
Water,.....Two "

to obtain 1000 parts of water. It is essential to leave the matico in contact with cold water during twenty-four hours before distillation.

OBSERVATIONS ON BLENNORRHŒA TREATED AT THE OUTSET AND CURED BY SIMPLE INJECTIONS.

Obs. 1.—M. X., twenty-two years of age, a government clerk, fair, and of lymphatic temperament, consulted me for a greenish running, that had appeared the day before: inflammation of the *meatus*, sharp pains in making water, nothing in the groin or in the testicles. Six days previously he had received the disease from a woman just through her courses. One injection morning and evening. At the end of two days he was sensibly better; the running had changed from a greenish white to a yellowish white: I continued the injections. A fortnight later I saw M. X. again, when he told me that he had been completely relieved on the seventh day of the treatment, and that he had delayed visiting me until assured of his cure.

Obs. 2.—M. X., forty-two years of age, gentleman; had contracted disease from a woman four months pregnant; he experienced frequent necessities to make water, and an itching along the canal. On the fourth day, upon waking, he perceived a drop on the meatus, by pressing the gland. I saw him at

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two o'clock, when the running had declared itself; it was a muco-purulent liquid. I gave him an injection morning and evening; the next day he was sensibly better, and on the fourth day he was completely cured. Two months later, M. X. called upon me in the same state; and this time the injections had to be continued during eight days. I could multiply observations of this sort in which distilled matico water always produced satisfactory results; but it is important that the running should be treated at the outset, and that the patient maintain a strict regimen.

OBSERVATIONS ON SUB-ACUTE BLENNORRHŒA.

When inflammation has existed for some time, and the running has acquired a certain density, I have very rarely obtained a definitive result with injections alone; but have then combined it with capsules of matico.

Obs. 1.—M. X., artist, twenty-nine years of age, dark, sanguine temperament, consulted me for blennorrhœa six weeks old; various treatments had already been employed without success. Upon my advice, he took an injection morning and evening, and on the third day he thought himself cured; but two days later, in consequence of a slight deviation from his regimen, the running reappeared, and apparently more abundantly. Fresh injections were followed during eight consecutive days, when he was apparently cured; but without any known cause he had a relapse. After ascertaining that there was no contraction of the canal I decided to prescribe matico capsules, conjointly with the injection, and upon the seventh day the patient was definitively cured.

Obs. 2.—M. B., law student, twenty-two years of age. Blennorrhœa of more than six months' date. He had tried every possible mode of treatment; capsules of every species and injections of all sorts. He consulted me regarding a drop that appeared every morning upon waking; he was alarmed, because under the influence of the slightest deviation of regimen, either respecting diet or coition, he experienced a greenish-yellow running instead of one drop. After ascertaining that no contraction existed, I ordered him to take twelve capsules and two injections *per diem*. This treatment was very regularly followed during a fortnight, and at the end of that time I required another fortnight of prudence and abnegation, and the cure was complete

Obs. 3.—M. X., sculptor, thirty years of age, fair, lymphatic, blennorrhœa of twelve months' date. He was tired of treating it, and had decided to do nothing for it; but a marriage he had in view induced him to try my mode of treatment, on the condition, however, that he should not be required to change his manner of living; using coffee, wine, and liquors, but not to excess. After using the capsules and injection for twelve days, he was cured; nevertheless on account of the long standing of the malady I required him to continue the treatment one week longer. A month later, M. X. came to thank me and announce his marriage.

SUMMARY.—It is evident that matico, or the active principle which it contains, is not a universal panacea in all cases of runnings, and that when there is a derterminative cause, such as a contraction (which should always be ascer-

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tained), or an affection of the prostate, and especially any weakness or relaxation of the seminal vesicles—for I have often seen runnings produced by inflammation caused by the sperm remaining upon the mucous membrane of the urethra, without the latter being previously lubricated by the prostatic fluid (as it happens in cases of spermatorrhœa)—it is evident, I say, that when there is a distinct cause, matico will produce little or no effect; but I wish to point out, that in cases of simple, acute, sub-acute, and chronic runnings, preparations of matico have given me the most certain and definitive results.

In the case of women, I have obtained, and daily obtain, even more remarkable results in cases of chronic leucorrhœa. These yellowish-white runnings, which are brought on by slight fatigue, or excess of any sort, or even simply before or after their periods, often undergo such sudden modifications, that although harmless at certain times, they may become very dangerous. The internal use of the capsules, and especially the direct application of a lint or cotton dossil, previously rolled in pulverized matico, and left in contact with the parts during twelve days, have afforded me excellent results.—*Am. Med. Times.*

Case of Poisoning by Laudanum—Belladonna used as an Antidote.

By James Blake, M. D.

G. B., æt. 4 years. Had been sick for three weeks from measles, followed by pneumonia. Was taking a preparation of quinine and iron with nitric acid, and for two days had been improving, although still very weak.

On the morning of April 8th, I was called to see him at 5.30 A. M., his father informing me that he was fearful he had given him a teaspoonful of laudanum, by mistake, instead of his medicine. When I arrived I found him insensible, not capable of being roused, breathing very heavily; he had already taken ten grains of ipecac. before I saw him, but now was incapable of swallowing; pupil contracted to a point; skin warm; pulse 100, rather small. After waiting a short time, to see if he could be made to swallow some sulphate of zinc, I sent for some of the fluid extract of belladonna, and going myself to get a stomach-pump, I requested a physician who was in the house to administer three drops, with a little water, as an enema, as soon as it arrived, and to repeat the dose in twenty minutes, should the pupil still remain contracted. The medicine did not arrive until near a quarter-past six, by which time the breathing had become quite stertorous, and the child was becoming black in the face.

On returning at 7 A. M., I found the child quite sensible, wide-awake, asking for drink, and the only apparent effect of the laudanum was that he seemed rather sleepy. I was informed that ten minutes after taking the enema the breathing became more natural, the expression of the countenance improved, and that twenty minutes after the injection, he roused up and asked for water.

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The child was so much improved, that although the pupil was still contracted, the second enema had not been given.

A further attempt was made to produce vomiting, by giving sulphate of zinc, and warm water and mustard, but unsuccessfully; and, as the stupor seemed to be again coming on, I gave a drop of the extract in water by the mouth, and two teaspoonsful of castor oil. The stupor still increasing, and the hands and feet becoming cold, another enema, containing three drops of the extract was administered, the extremities being kept warm by artificial heat. At this time, the respiration had fallen to eight in a minute, the lips becoming dark. In five minutes after taking the enema, the respirations were twelve in a minute; and in a quarter of an hour, were sixteen, the expression of the face becoming more natural. The child could now be easily roused, took some drink, and was constantly rubbing its nose; pupils still contracted. Stupor again came on, and another enema was given, with three drops of the extract, and being obliged to leave, I directed two drops of the extract to be administered every half hour until the pupil should dilate.

On returning at 11 A. M., I found the child evidently affected by the belladonna; face flushed; skin moist; pulse soft, but full; respirations eighteen in a minute. Three enemata had been administered. Consciousness had been perfectly restored; complained of dryness of the throat; had taken some egg and brandy. The pupil had expanded a great deal, but still rather small. Mucous was collecting in the bronchial tubes and trachea, and seemed to interfere considerably with breathing. There was constant movement of the tongue, caused apparently by twitching of submental muscles. No attempt at coughing was made, although the child was strong enough to sit up, and to change its position, it appeared as if the reflex sensibility had been destroyed. Discontinued the use of the belladonna, and gave enemata with turpentine and castor-oil, until the bowels were moved.

2 P. M. Flush has gone off the face; pulse not so full, about 100; pupils more dilated, about natural. The bowels have not been moved, although two enemata, with castor-oil and turpentine, have been given, and two with soap and water. During the last half-hour has been more drowsy; respiration twenty-four; evidently considerable secretion in the air-passages, and no effort to cough; at present cannot swallow. Ordered enema, with croton-oil and turpentine; but the child evidently sinking from asphyxia. The bowels were moved at 3 P. M., but the child died asphyxiated at 4.40 P. M., or about thirteen hours after taking the laudanum.

I have reported this case, although terminating fatally, in order to call the attention of the profession to the use of belladonna, as an antidote to poisoning with opium, and *vice versa*, of opium as an antidote in poisoning with belladonna. From the marked relief afforded by the administration of the belladonna, and from the power it exercised on each repetition in rousing the child from a state of coma, it is evident that it exerts a specific influence over some of the worst symptoms produced by opium. The return of insensibility, both mental and organic, was well marked, and was renewed at each dose of the

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medicine. Unfortunately, the reflex susceptibility of the mucous membrane of the air-passages to stimuli, seemed to be diminished, as the child made no effort at expectoration after it was once fully under the influence of belladonna. Owing to the copious secretion caused by the subsiding pneumonia, the air-passages soon became so loaded as to prevent respiration. Had this not been the case, and had the child possessed a little more strength, I have no doubt but the case would have terminated differently; in fact, so far as the symptoms of opium poisoning were concerned, they were entirely relieved. The quantity of belladonna administered was not very large, about eighteen drops of the Fluid Extract. My object was to give as little as possible, being afraid about expectoration.

In the last number of the *American Journal of Medical Sciences*, Dr. Lee has an article "on the Antagonistic Effects of Opium and the Mydriatics illustrated by Cases of Poisoning in the Human Subject." He relates three cases in adults, in which the symptoms of poisoning by stramonium, were speedily relieved by the administration of half-grain doses of morphine every half hour, until two grains had been taken, and, in one instance, until the patient had taken three and a half grains of morphine, besides eighty drops of laudanum.

He relates another case, in which a poisonous dose of belladonna had been taken by a child six years old. "Twenty drops of laudanum by the mouth, and the same amount by the rectum, were simultaneously administered, and at intervals of half an hour, the dose of twenty drops was repeated until the patient had taken 120 drops in all." In three hours the child was well, and running about the room.

In another case, in a child two years old, which had been poisoned by laudanum, the tincture of belladonna was administered in fifteen drop doses every twenty minutes, until four doses were taken. The child, in about two hours, was, to all appearances, well.

Dr. Lee than alludes to other cases that have been published, evidently showing that the one poison neutralizes the effect of the other.—*Pacific Med. and Surg. Journal.*

Diphtheria.

[Dr. G. B. CURTIS, of Hawley, Wayne county, Pa., in a letter to the *Med. and Surg. Reporter*, gives the following account of diphtheria as it has prevailed in his vicinity, and the remedies that have proved most successful in arresting and curing the disease:]

It is little more than a year since sporadic cases of this affection occurred in various parts of the county, and these often assumed the form of croup, so that, in many cases, they were not at first fully recognized. Soon, however, unmistakable evidences of the nature of the disease were manifest as in the form of an epidemic; it visited various neighborhoods in the vicinity of Hones-

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dale and Hawley, and it came as a "fell destroyer," removing two, three, and in some instances five, from a family. The disease generally assumed one of two forms, which might be termed: 1. Simple diphtheritis. 2. Malignant diphtheritis. The first was characterized by a pseudo-membranous inflammation of the fauces and adjoining tissues, the mucous membrane of the parts affected assuming a deep-red color, and some portions becoming covered by an ash-colored or yellowish-white exudation. The disease usually traveled into the posterior nares, producing symptoms of catarrh, with a tendency to hemorrhage, and often into the larynx, simulating croup.

The tonsils and uvula would become swollen so as to interfere more or less with deglutition. Some fever would exist, in most cases at the commencement of the attack.

2. Malignant diphtheritis has been attended with some of the same symptoms, but was known especially by the excessive tumefaction of the salivary and cervical glands and the adjoining cellular tissue, (so as often to give the patient a disfigured and purple aspect,) a dark-red appearance of the fauces, with heavy, ashy deposits, especially upon the tonsils; fetid breath, and symptoms of asphyxia, with vomiting, if the case terminated fatally. There have been in some cases much prostration, amounting to syncope, if the patients attempt to sit up; but in many, even of the most fatal, they would keep about, and say they felt "better," *only an hour before they were dead.* These two forms of the disease have blended more or less into each other, proving their is no essential difference in the *nature*, but only in the *amount* of the materies morbi introduced into the system. What the specific cause is, where it is, its *nature*, whether atmospheric or telluric, animalcular or vegetable, chemical or mechanical, are problems for medical science yet to demonstrate. The same may be said of scarlatina, rubeola, variola, and erysipelas, all of which by-the-way, have been epidemic in this county during the last year. To investigate the *causes* of these diseases opens an ample field into which all medical men should feel invited to enter, and thus strive to benefit the race, and remove the stigma of this ignorance from our noble profession.

But to return to the subject. In regard to the treatment the most opposite modes were employed, until aroused by the fatality of the disease to the importance of correct treatment, and now an alterative and powerfully tonic course is generally adopted. From all that I could hear and read, and learn from experience, I have adopted the following prescriptions, which prove successful in nearly all cases, if seen in good season:—

℞ Quiniæ sulph. ʒjss; tinct. ferri chloridi, fʒss; syrup. tolu. fʒvij. M. Adult doses, one teaspoonful every three hours, night and day. Also to be used at the same time: ℞ Potass. chloras., rad. glycyrrhiza, āā ʒss; rain-water, Oj. M. Dose, one tablespoonful every three hours, equidistant from the above tonic; using it also as a gargle, *every hour in bad cases.* For an application to the deposits in the fauces, the following answers better than the nitrate of silver. ℞.—Alum, ʒj; potass. nitras, ʒss; cupri sulphas, ʒj; rain-water, Oj. Mix. Apply every six hours. Cathartics are injurious un-

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less costiveness exists; also emetics, unless suffocation or croupal symptoms appear, and are then of doubtful property. For the external tumefaction of the glands of the neck, the following application, every six hours is effectual. R.—Ext. belladonnæ, 3j; potass. iodidi, 3ss; aq. puræ, f℥j. Mix. Used one-quarter this strength for very young children, and applied to but one side at a time, alternately, every six hours. Pressure upon the same glands is useful. Good care, good diet, good air, and *quiet*, should all be enjoined. These same remedies, given during the day to other members of a family, where the disease exists, act as prophylactics to a greater or less extent, and should not be neglected.

The disease is now disappearing as it came, with here and there isolated cases which, however, are attended with but very little fatality.

Albuminate of Iron and Soda as a Therapeutic Agent.

By Angelico Fabri.

Simple contact, at the ordinary temperature of the atmosphere, of white of egg with a salt of iron and soda, is capable of instantly producing a soluble albuminate of iron and soda, or an albuminferrate of the alkaline base. The chemical combination of this compound is such that it is not altered by the yellow ferrocyanide of potassium, the most delicate test of the salts of iron, unless a few drops of acid—as for example, the hydrochloric, be previously added to the soluble albuminate—thus proving that this decomposition cannot be effected by the agency of the alkalies, but only by some acids, since the potassium of the cyanide is not able to displace the oxide of iron, becoming oxidized at its expense, and seting the metal free, as occurs with the other ferruginous preparations. Considering that we find in the blood, albumen, soda in excess, and iron, and having shown how these three bodies, by simple direct contact, form a soluble salt, the chemical combination of which is so powerful that it is not destroyed by the most delicate re-agent, may we not fairly infer that the iron exists in the blood as an albuminate of iron and soda; and would it not, therefore be reasonable to administer iron in the various diseases in which it is prescribed, principally in reference to the state of the sanguineous system, in the form of albuminate, as that in which nature itself has placed it within our organism—one of the products, so to speak, on which our life depends. When I read in works of chemistry that the yellow ferrocyanide of potassium is not capable of demonstrating the presence of iron in the blood until a stream of chlorine has first been passed through the latter to destry its coloring matter, I am confirmed in the opinion that the iron exists in that fluid as an albuminate of iron and soda, because this salt, requiring the addition of an acid to render it capable of detection by the cyanide, is supplied with it by the chlorine, which, in destroying the organic coloring matter, becomse converted into hydrochloric acid by uniting with their hydrogen. Phy-

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sicians have been long puzzled, and are still at a loss, how to administer iron, a valuable remedy, in the manner most suitable to the internal organism; hence the great number of preparations of this metal. Some object to its saline combination with mineral acids on the ground that these are inorganic, and they prefer giving it in the metallic or oxidised, state, leaving the acids of the stomach to form with its compounds which may be carried into the circulation. Others, unwilling to run the risk of having the greater part of the iron—little or not at all acted upon—expelled with the fæces, prescribe it in the saline state, but combined with organic vegetable acids; hence we have the malate, tannate, citrate, etc. of iron. Others, still more scrupulous, wish to have it united to acids of an animal nature, and prefer the lactate, the cyanide, etc.; and I, going still farther, would recommend its employment in the state of albuminate of iron and soda, requesting physicans to take into consideration what I have advanced, and to ascertain if practice will in this instance corroborate theory.

In preparing the albuminate of iron and soda, I employed the following process: Take 112 grs. of caustic soda, and 104 of sulphate of iron. Having dissolved both in a sufficient quantity of distilled water, let the solutions be poured on the whites of four eggs previously beaten up; let all now be shaken together and poured upon a filter to separate the hydrated oxide of iron which has precipitated, since all the iron is not in this case converted into albuminate. To the filtered liquid, which now contains, in additon to the albuminate, sulphate of soda, formed by the decomposition of sulphate of iron by the soda present in excess, lime water is to be added, to decompose the sulphate of soda, by which an insoluble sulphate of lime is precipiatated. To separate the latter, the mixture is to be again filtered; and as the filtered fluid will contain an excess of lime, it is to be subjected to the action of a stream of carbonic acid, care being taken to avoid using an excess of the latter, and again filter to get rid of the insoluble carbonate of lime thus formed. The filtered fluid is now to be allowed to evaporate in a wide, shallow vessel, and with the aid of the heat of a stove until it is reduced to a pint. A clear orange yellow, slightly saltish, chalybeate solution is thus obtained, which, as already mentioned, does not give a precipitate with ferrocyanide of potassium without the addition of an acid. Each ounee of this liquid contains, approximately, four grains of the albuminate, *plus* an excess of albumen and soda, as may be seen by referring to the process employed: the solution consequently has a slightly alkaline reaction. It is desirable that the soda should thus be present in excess in order that the compound shall be conformable to the state in which it exists in the blood, where we find the albumen rendered alkaline by an excess of soda.—*Journ. Rational Medicine; American Drug. Circular and Chemical Gazette.*

Chloride of Barium in Tetanus.—At Milan a case of tetanus has been successfully treated by chloride of barium, ten grains dissolved in a pint of water, taken during twenty-four hours.—*Am. Drug. Circular and Chem. Gazette.*

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[From Report of Philadelphia County Medical Society, in *Med. and Surg. Reporter.*]

Veratrum Viride.

Reported by WILLIAM B. ATKINSON, M. D., Recording Secretary.

The subject for discussion was opened by Dr. W. B. ATKINSON, in the following remarks :—

Having been honored by a request from the Committee on Business of your society to present at this meeting a paper upon the subject of veratrum viride, I shall endeavor, in reply, to offer for your consideration as complete a summary of the knowledge now possessed by the profession concerning this remedial agent as can be gleaned from a careful inspection of the medical journals, which is the ony source from which may be obtained information concerning a remedy of so recent introduction to our notice. I say recent, for though in 1835 the attention of the profession was directed to it by Dr. Samuel Osgood, of Providence, Rhode Island, and though, even prior to that time, this article was occasionally employed, yet it has been comparatively unknown, or rather disregarded, until within the last five years, and even now remains in a somewhat obscure position.

As this paper is specially devoted to an elucidation of the medical properties of the veratrum viride, I shall content myself, in passing, by referring my hearers to an article upon the subject in the *American Journal of Medical Science*, October, 1858, for full information as to its botanical characters, physical properties, chemical composition, mode of preparation, literature, etc. This and a similar paper in a subsequent number of the same Journal, October, 1861, prepared by Drs. Cutter, Rickard, and Ingalls, a committee from the Massachusetts Medical Society, together with a paper by Dr. John Bell, in the *North American Medico-Chirurgical Review*, September, 1858, presents a very full resumé of the experience of the profession in the use of this agent.

As a therapeutical agent, we have it offered to us in the form of tincture, fluid extract, powder, and some have suggested a cataplasm of the leaves. The tincture is generally preferred, though a few employ the fluid extract. It was originally presented to the profession as a powerful arterial sedative, but with that love of panaceas so prevalent among us, we will not be surprised when we find it vaunted as very valuable for its powers as an expectorant, diaphoretic, diuretic, emetic, and cathartic.

No uniform mode of preparation having yet been adopted, much variation has been found in the strength, and consequently, the dose of this remedy, or where the same dose has been given, the effects have been either alarming or almost negative, thus leading to much objection to its employment.

Dr. Norwood, who gained notoriety by his charlatan mode of claiming a peculiar benefit from his preparation, made a saturated tincture, by macerating for two weeks ℥ viij of the dried root in Oj of alcohol, and this, to a great extent, is the formula by which it is now prepared.

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In presenting the views of its advocates, we shall endeavor to sift the pure grain from the chaff, and make proper allowance for that zeal in a new discovery which too often leads our brethren, in common with their fellow-men, to find beauties where a less prejudiced eye would fail to discover aught beyond the ordinary appearance.

Of its effects upon arterial action, we have the most positive evidence. In every case where it has been employed, from every practitioner who has watched its effects, we have the record of its power in rapidly controlling the pulse.

Dr. Horace Green, of New York, (*American Medical Monthly*, February, 1857,) says that it has never failed, when properly administered, to diminish arterial action. He reports a case where a pulse of 120 was reduced to 58, and kept about that point day after day; in another, from 130 to 68 in fifteen hours, etc.

Dr. Carnochan, in the Emigrant's Hospital, fully tested it, and found a like result.

Dr. R. H. Jameson, of Indiana, (*Nothwestern Medical and Surgical Journal*, August, 1857—*Transactions of the State Medical Society of Indiana*, 1857,) has noticed a marked diminution in the frequency of thepulse without the least nausea. He does not deem it advisable to reduce the pulse below 70.

Dr. H. Livezey, of Pennsylvania, (*Boston Medical and Surgical Jour.* March 1857,) regards it as an "invaluable arterial sedative, standing unequaled and unparalleled among all therapeutic agents." * * * "By it arterial action is more permanently reduced than by the lancet." He employs the fluid extract in doses of five drops, increased till the effect is produced, and then diminished.

Dr. G. W. Boerstler, Lancaster, Ohio, (*Western Lancet*, May, 1857,) says: "The veratrum has never disappointed me, and that without one unfavorable symptom resulting from its use. In no instance, however, have I brought down the heart's action to a normal state, without my patient complaining of some degree of nausea. As a curb to the inordinate action of the heart it is truly invaluable." He further remarks: "Believing, as I do, that the *vis a tergo* of the heart is neither the first link, nor yet the essential phenomenon in inflammatory diseases, I hold the veratrum not as a curative agent, but as a most desirable adjuvant."

Dr. W. W. Gerhard, Pennsylvania, (*Medical and Surgical Reporter*, vol. ii. p. 56.) employed it in a case of acute rheumatism, in the dose of four drops every three or four hours, and reduced the pulse from 130 to 50 in the course of three days. He "finds it similar, but more *powerful* than digitails."

Dr. Taliaferro, Georgia, (*Alanta Medical and Surgical Journal*, March, 1857,) remarks: "The great advantage this remedy possesses over the abstraction of blood is, that its effects are far more decided, and not followed by the reaction which almost invariably succeeds venesection. Not only this, but the effects of the remedy may be continued for days and even weeks, successively, without unpleasant consequences; whereas, a frequent repetition of blood-letting would, in most cases, be injurious." He gave it in the dose of

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ten drops, followed in three hours by six, and again by five drops. In six hours, the pulse from 100 was reduced to 70, and so remained.

Dr. U. G. Mitchell Walker, Alabama, (*Southern Medical and Surgical Journal,*) considers it an excellent adjuvant to the lancet. His dose is from four to five drops every hour, increasing one drop each dose till the patient is under its influence.

Dr. Hutchinson, Indiana, (*Western Lancet*, February, 1857,) has found the pulse, when influenced by this agent, as *sui generis*, easily recognizable, and gives it the specific name of the *veratrum* pulse.

Dr. C. H. Murphy (*St. Louis Medical and Surgical Reporter*, March, 1857) has never failed to observe its effects. His dose is eight drops every three hours, increasing one drop each dose until the production of nausea.

Dr. Watson (*ibid,*) gave to a girl of seventeen years, laboring under an acute pneumonia, twelve drops, producing in fifteen minutes its characteristic effects, and reducing the pulse from 130 to 60. The next day, the pulse regained its frequency, but with two doses, it was again brought under control, and no more medicine was required.

Dr. D. L. McGugin, of Iowa, (*Iowa Medical Journal*, No. 1, 1857,) gives the details of a number of cases of acute inflammation, in each of which the medicine, in the dose of four or five drops every three hours, rapidly reduced the heart's action to the normal rate. Subseqnently, (*ibid.* No. 2,) he says: "I am convinced that, as an arterial sedative, it has no superior, and that it fills a void in the list of therapeutic agents which we have felt, etc."

Dr. W. R. Handy, Baltimore, (*Boston Medical and Surgical Journal*, April. 1857,) in a fatal case of pneumonia, employed venesection, leching, blistering, calomel, nitre, and antimony for two weeks, without reducing the pulse or acting upon the skin; but when recourse was had to the veratrum, in doses of five drops, the pulse fell from 120 to 94 after five doses had been taken. Throughout this case, which he details in full, the action of this agent was most conspicuous, always readily controlling the pulse, which quickly rose when the influence of the medicine was suffered to disappear. Digitalis having been also administered, the contrast, Dr. H. thinks, was decidedly in favor of the veratrum.

Dr. Hill, Illinois, (*Northwestern Medical and Surgical Journal*, May, 1857,) in a case where, by great carelessness, a large number of remedial agents were swallowed in a very short time, producing great febrile action, active cerebral congestion, and constant delirium, gave two doses, of five drops each, at an interval of half an hour, producing emesis, diminishing the force and frequency of the pulse, and removing the congestion, etc.

Prof. Barker, of Bellevue, (*American Medical Monthly*, Nov. 1857,) gives a very careful record of the clinical use of this remedy in a case of puerperal fever, showing the powerful effect which was promptly produced by ten-drop doses every hour. The pulse fell from 140 to 80 in five hours, and by the exhibition of small doses was kept between that point and 50. The whole case is so carefully reported that we would refer our hearers to it for further in-

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spection, as it clearly portrays the action of this medicine when given with care, and its results noted.

Dr. J. L. Atlee, Lancaster, Pa., gave five drops every three hours in a case of puerperal mania, with the best effects upon the arterial excitement. He had observed that it was not generally till the third dose that benefit was obtained.

Dr. T. W. Foster, Pennsylvania, (*Medical and Surgical Reporter*. vol. i. p. 451,) gives six to eight drops every three hours, increasing one drop each dose. In his hands, it has speedily controlled the inordinate action of the heart, and he regards it as especially adapted to all acute phlogoses.

Dr. A. Hard, Aurora, Illinois, (*Chicago Examiner*,) has found it the most certain of all arterial sedatives.

Dr. Jas. Hendley, Farmington, Kentucky, (*Nashville Journal of Medicine and Surgery*, November, 1858,) employed it in hepatitis and pneumonia with marked success, reducing the pulse in eight hours from 112 to 40.

Dr. Boyd Emery, West Middletown, Washington County, Pennsylvania, (*Transactions of the Medical Society of Pennsylvania*,) found it to control the force and frequency of the pulse, and an admirable antiphlogistic.

In the *Transactions of the Medical Society of the State of Pennsylvania*, the veratrum, whenever alluded to, which frequently occurs, is mentioned as reliable, rapid, and of great value in acute attacks of pneumonia, etc.

Dr. G. M. Staples, Dubuque, Iowa, (*Medical and Surgical Reporter*, August 3, 1861,) says "his experience satisfies him that we have in this drug an agent which enables the physician to maintain for an indefinite time complete control of the nervous and circulatory systems."

Dr. J. R. McClurg, Pennsylvania, (*ibid*, May 21, 1859,) regards it as in every way reliable, and reports instances of its employment with the usual result upon the circulation.

From the reports of physicians, some forty in number, embodied in the two valuable papers alluded to, as presented before the Massachusetts Medical Society, we may sum up the testimony as strongly favoring its reliability as an arterial sedative. Without a single exception, these gentlemen, all of whom had the same preparation to test, agree in claiming for it great power over the action of the circulatory apparatus.

By the most careful researches, we have encountered so few who view the veratrum as utterly destitute of this power, and as their experience may be so easily explained by the belief that this want of success was due solely to the bad quality of the preparation employed by them, we do not consider such negative testimony of sufficient weight in the slightest degree, for a moment to turn the scale against it.

In addition to this, these combined opinions would show it to be not only reliable, but safe, when used in the proper dose. A few have objected to it as causing dangerous symptoms.

Dr. Charles A. Lee, in the *Journal of Materia Medica*, says "The same objections will apply to it as have been brought against aconite, viz., the diffi-

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culty of regulating its effects, and its dangerous depressing influence, even in small doses." * * * "We have little doubt," he further remarks, "that it has caused more deaths in one year than chloroform has since its discovery." Now the cases reported so fully in the introduction of this subject range in age from the infant of a few months to the aged invalid, and some, at least, should have exhibited these bad results. Yet we see no deaths actually reported.

Dr C. K. Winston, Nashville [*Reporter*, February, 1857,] complains of it as not being as prompt with children as with adults; that it is not applicable when sick stomach is present, and that it causes *abortion* after a few days.

Dr. W. C. Rogers, Green Island, New York, [*American Medical Monthly*, June 1, 1858,] finds that it produces a feeble pulse with intermissions, in continued fever, that it does not modify or arrest inflammation, and it is advantageous only to check the circulation, and allow the lungs, as in pneumonia repose without loss of blood, but regards it as a valuable adjuvant in inflammatory and febrile diseases.

Dr. Junius Michie, Virginia, [*Virginia Medical Journal*, November, 1858,] is afraid of the remedy, having tried it in a case of pneumonia, aged twenty-two, giving three drops, when it reduced the pulse twenty beats in one hour. He believes it to reduce the frequency, not the force.

Dr. Jas. J. Rooker, Castleton, Indiana, [*Cincinnati Lancet and Observer*, November, 1858,] gave it in a case of typhoid fever, aged thirty-five, in four-drop doses, every four hours. It reduced the pulse from 114 to 90, making the patient very weak, when he stopped the remedy. It was again employed, and the patient died. In a case of typhoid pneumonia, aged twenty-two, of intemperate habits, its effects were so powerful that he was compelled to discontinue its use.

These physicians are about all who have found it objectionable, or who have deemed it necessary to caution their brethren least evil might ensue; and it is not reasonable to believe that if others had observed such bad effects, they would have hesitated to publish their experience, and thus place the profession on guard. We do not doubt that, when carelessly employed, this remedy, like almost every other, is capable of producing mischievous results, but that it is so sudden and insidious, or so violently emetic as some would have us believe, is, in our estimation, not worthy of credence. Of course, in this remark, we would be understood as excluding those special though extremely rare instances, where, by the existence of an idiosyncrasy, this agent might produce peculiar symptoms. We contend, from the vast array of facts, and our own limited experience, that veratrum viride is not, in any way, a doubtful or dangerous remedy; but, on the contrary, so reliable that, when given in the proper dose, and with ordinary care, requisite in the administration of the vast majority of medicines, it will never fail to produce upon the circulation its characteristic effects.

In this connection it may be well for us to review the charge brought against it, of causing abortion.

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Dr. W. A. Brown, Georgia, [*Nashville Journal of Medicine*, October, 1856,] declares that in his own practice and that of several friends it has exhibited a tendency to cause abortion.

This gentleman is replied to by Drs. Haughton, of Indiana, [*abid.*, December, 1856,] and B. T. Newsom, of Georgia, [*abid.*, January, 1857,] both of whom have given the article in all stages of pregnancy without any such result in a single instance. The latter mentions the fact of its having been taken by several females surreptitiously, with the desire to produce abortion; but in every instance their nefarious efforts failed.

A writer in the *New Orleans Medical News*, August, 1858, reports a case of typhoid fever, aged thirty-two, in the sixth month of pregnancy, who miscarried on the seconed day of its use. Physicians, especially when of limited experience, are so ready to reason *post hoc, ergo propter hoc*, that it is not a matter for wonder to find a few attributing such a result to the employment of the remedy, without reflecting upon the great liability of a woman laboring under a severe attack of typhoid to miscarry, and more particularly when the remedial agent has been carried to its emetic effect.

In my own practice, October 27th, I gave the veratrum to a patient about the sixth month. She was speedily relieved without the use of any other medicine. November 14th, having completely recovered, she went to market, carried home a heavy basket, and was immediately taken with severe flooding, which, by the usual means, was checked, but in a few days again brought on by unusual exertion in cleaning house: a miscarriage resulted December 3d. Was this caused by the veratrum employed thirty-eight days before?

It is quite reasonable to anticipate that an article having the power already attributed to, and so clearly proven as belonging to this, should also be capable of manifesting other beneficial properties; and hence we find physicians reporting it as an expectorant, a diuretic, a diaphoretic, and a nervine. Though it acts emetically in large doses, or when long continued, yet no advantage is claimed for or possessed by it, which could cause it to be recommended for this specific purpose.

Concerning its cathartic properties, which, at one time, it was thought to possess in a high degree, we believe that it only acts thus in particular cases, or continues catharsis, previously induced by other agents. In the pursuit of our inquiries, we find reports of its successful administration in cases of pneumonia, pleurisy, apoplexy, typhoid fever, neuralgia, uterine hemorrhage, and hemorrhages of all kinds, rheumatism, puerperal peritonitis, croup, convulsions, particularly infantile and puerperal, herpes zoster and other cutaneous affections, hysteria, puerperal mania, and other mental derangements, dysmenorrhœa, obstinate colic, cardiac affections, whether acute or chronic, hepatitis, scarlatina, measles, erysipelas, yellow fever, asthma, ovaritis, influenza, and caked breasts.

It is spoken of by some writers as having a peculiar influence upon the nervous system, by virtue of which it produces its sedative effect upon arterial action.

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Dr. McClurg, Philadelpha, [*Medical and Surgical Reporter*, May 21, 1859,] says: "The veratrum viride is unquestionably one of the most active and reliable medicines used by the profession, and its effects upon the system are doubtless, in my mind, produced through the medium of the nervous system, and particularly the sympathetic part of the system. * * * It produces its influence not upon the brain primarily, but upon the *cerebrum abdominale*, that organic nervous centre which sends branches to and presides over the organs of involuntary motion, quite independent of the brain, and imparts power, tone, and energy to them in its normal condition, and weakness and derangement to them in its abnormal state." Hence, he argues we should expect, and really do find it influencing more powerfully those organs under the immediate supervision of this nerve.

From the record thus presented of the powers of the veratrum, we may readily infer that cases should frequently occur in which alarming results have followed its employment in a careless or inadvertent manner. Without attempting to detail any of these instances, we may remark that none proved fatal. Where the doses had been continued too long, or too frequently repeated by an over-zealous attendant, or where children or others had swallowed enormous quantities, even as much as one ounce, the uniform effect was emesis, which speedily relieved the patient of the drug; after which, in some cases, great prostration ensued, though always easily remedied by the use of opiates and alcohol—the former to subdue the gastric disturbance, the latter to stimulate and revive the patient from the alarming state of sinking into which he had been thrown. In addition, a sinapism over the epigastrium is of marked value. In some, prior to the inception of free vomiting, the prostration and nausea are intense, but rapidly disappear after emesis. In fact it has been frequently noticed that this formed, as it were, a crisis in the disease, under which the patient may have been laboring, and was followed by a rapid amelioration of all the symptoms.

From the cases reported, it would appear that in the acute phlogoses this remedy has been most successfully employed, as we would at once infer from the knowledge already obtained as to its curative properties; thus, in pneumonia, pleurisy, pleuro-pneumonia, acute rheumatism, cardits, peritonitis, and erysipelas, it never failed to reduce the febrile action, and in many cases the disease was entirely and permanently checked without the employment of other remedies. In addition to this we have the testimony of Dr. G. S. Bishop, of this city, and favorably known to most of us, as to its eminent services in inflammatory action after injuries or surgical operations.

We must be pardoned for once more quoting the language of others. In the above-mentioned report to the Massachusetts Medical Society, Dr. B. says: "One of the first patients to whom I gave this remedial agent was a medical student injured about the face and neck by the explosion of fireworks. I saw him two hours after the accident, applied glycerin and lime-water to the burns, and gave eight drops of the tincture veratri viridis every two hours. The next morning his pulse had fallen from 100 to 51. He had taken

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forty drops of the medicine, having omitted two doses on account of nausea. He continued to take enough to keep his pulse about 60 for thirty-six hours, by the end of which time that portion of the burn which was merely reddened, had resumed its natural color, and that which was vesicated was pale, and healing rapidly. From the time that the sedative influence of the veratrum became established, he felt no pain."

Dr. B. mentions several other cases, and remarks: "In fracturers I ordinarily give it four or five days, and find that there is much less pain and swelling at the seat of injury than is generally seen in these cases—the fractures uniting just as readily and the patient's comforts being greatly increased thereby. After surgical operations, where I wish to avoid inflammation and promote union by the first intention, I usually resort to veratrum viride."

Acknowledging it to possess a peculiar influence over the nervous system, we are prepared to find it employed beneficially in affections specially due to nervous irritability. Thus its advocates unite in extolling it as of great value in convulsions of all kinds, whether of adults or infants. We cannot forbear again referring to Dr. Bishop, who relates the case of a little girl, aged four years, laboring under convulsions from congestion of the brain. Pulse 120. Applied cold to the head, and gave 1½ drops of the tincture veratri viridis every hour. Three doses were given, when she broke out into a profuse, cold perspiration, with all the symptoms of prostration. The friends becoming alarmed, summoned the doctor, who did not arrive until about two hours, or four and a half hours from the time she was first seen. Instead of finding her dead, she was lying upon the bed, playing with a doll, perfectly relieved, her pulse 72.

From its action in our own hands, we are prepared to anticipate the happiest results in infantile convulsions, than which there is scarcely any affection of childhood more alarming, or of which the treatment is less satisfactory,

Drs. J. L. Atlee, Lancaster Penna., and A. B. Clark, Holyoke, Mass., report cases of puerperal mania treated with this remedy. In both instances its effect was to speedily relieve the excitement and mania, and a rapid and permanent cure followed.

In pulmonary and kindred affections, its expectorant powers come into play, and we incline to the belief that it would form a valuable adjuvant to most cough mixtures.

Of its value as a tonic and diuretic, but little has been written. Concerning the former, we are at a loss to understand how an agent of this class could act, and would be extremely loath to be the instrument of inducing such a belief in the minds of any of our hearers.

Its successful administration in various cutaneous affections has also been reported. Dr. Workman, of Worcester, Mass., used it in a number of cases of obstinate prurigo, which had resisted various other remedies. He applied it in the form of an ointment made of the pulverized root, with sulpher and lard, producing considerable irritation of the skin, severe burning and smarting, but was completely successful in removing the disease. Dr. B. F. Schneck, Lebanon, Penna, reports a case of herpes zoster, where the eruption extended

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over a large surface, being much inflamed and exceedingly painful. Everything had failed to relieve the attack, which had lasted for six or eight weeks. He then gave four drops of the tincture every four hours. In one week the pains had much diminished, and by the end of the second the eruption had disappeared, and the parts were completely healed.

Without enlarging further upon the therapeutical uses of the subject of our essay, we shall conclude this paper, which, though long, we hope has not been without interest, by a summary of the knowledge thus attempted to be imparted concerning the veratrum viride.

1st. The tincture, as prepared according to the above formula, is the most reliable and preferable means of administering this remedy.

2d. The dose for an adult should be from five to ten drops, varied according to the urgency of the symptoms, the indications, age, and strength of the patient, and repeated at intervals of from one to four hours. To children, say of one year, the quantity should be much smaller, say one to two drops, carefully watched.

3d. Nausea and vomiting, especially the latter, are not necessary in order to produce the full effect of the remedy, though in certain cases its power is not shown until such results are produced.

4th. When the case is urgent, and circumstances permit, the quantity may be advantageously increased by one drop every dose, or every other dose, until diaphoresis, etc. occur, when the quantity should be diminished, or the remedy entirely withdrawn, according as indications may suggest.

5th. Veratrum viride is a valuable arterial and nervous sedative, employed either by itself or as an adjuvant to kindred agents.

6th. It is as safe a member of the materia medica as any we possess, merely requiring, in common with the majority, a due degree of caution in its employment, and being, like all, liable to fail in special cases, as where idiosyncrasies may exist.

7th. In the treatment of low forms of fever, or inflammatory or other diseases in old people, or those already debilitated, it is to be preferred to the lancet, and in fact relieves without depriving the patient of any portion of the vital fluid.

8th. To derive the greatest good from this agent, it is not desirable to bring the pulse much or at all below the normal rate, only being careful, other things being equal, to maintain it about that point, without suffering it to rise.

Note.—Professor Joseph Carson, President of the Society, having called the attention of the writer to the supposed identity of *veratria* and the alkaloid obtained from the veratrum viride, he would offer, in elucidation of that point, the following abstracts:—

In an inaugural essay on Veratrum Viride, by T. R. Mitchell, published in the *American Journal of Pharmacy*, vol. ix. page 181, we find the report of some experiments with the "decoction, which was of a slight red color, a mucilaginous appearance, and formed precipitates with subacetate of lead in solution, with a persalt of iron, and alcohol." These experiments were con-

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tinued with a tincture, ℥ j of the bruised root to f ℥ ij of alcohol, and also an ethereal tincture. His observations led him to conclude that in this plant there exists "gum, resin, starch, red coloring matter, wax, sugar, a bitter proximate principle, [supposed to be analogous to veratria,] and gallic acid combined with the preceding."

An inaugural essay, by H. W. Worthington, published in the *American Journal of Pharmacy*, vol. x. page 89, gives, in addition to the botanical history, the medical properties and chemical history. His experiments led him to the same conclusion as that of Mr. Mitchell; both agreeing as to the presence of a bitter principle identical with veratria.

Mr. Worthington denies it any cathartic powers. He took one-fourth of a grain of an alcoholic extract, made by digesting one ounce of the root in four ounces of absolute alcohol for four days, then filtering and evaporating. It caused an acrid, burning sensation in the mouth, and communicated to the throat and fauces a sense of dryness and heat, which finally reached the stomach. In an hour this became intense, and frequent hiccough ensued. Violent vomiting followed, occurring every ten or fifteen minutes, for the space of an hour, with dizziness and tremor, which passed off with the effects of the dose. In addition, he had a copious secretion of saliva, and discharge of mucus from the nose and stomach. The pulse was scarcely perceptible, and was reduced from 68 to 52 pulsations per minute. At intervals of two or three weeks he repeated the dose, with the same effects.

In the *American Journal of Pharmacy*, third series, vol. v. page 204, we find an inaugural essay, by Jos. G. Richardson, of Philadelpha. He experimented with the alkaloid obtained from the veratrum viride, and tabulates the results obtained; arriving at the conclusion that "not only in its physical characteristics but also in its chemical reactions, the alkaloid of veratrum viride *is* identical with the veratria of the veratrum sabadilla."

Success of the Tonic and Stimulating Plan of Treatment

IN THE NEW YORK STATE VOLUNTEER HOSPITAL.

For a year past, one of the three buildings constituting the New York Hospital has been appropriated to the sick and wounded Volunteers of the State. Until within the past two or three months it has been under the medical superintendence of Dr. C. R. AGNEW, assisted by Drs. MCKEE and HOGAN. The Institution was then, to all intents and purposes, a distinct Hospital under the direction of the State authorities. Since, however, the resignation of Dr. Agnew, the Volunteer Hospital, as such, has ceased to exist, and the soldiers are now received by the New York Hospital according to special contract.

During the existence of this hospital, a large number of cases were treated, embracing principally measles, typhoid fever, pneumonia, and pericarditis. A record of the general practice of the institution as furnished by Dr. Hogan,

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the resident physician to the Hospital, is certainly of great interest to every practitioner of medicine, and serves to illustrate in a very marked degree the value of the supporting plan of treatment, even in those diseases charcterized by severe inflammation.

The number of cases of measles was very considerable. The patients were generally admitted with the rash pretty well developed. The type of the disease was asthenic, and where phneumonia did not exist as a complication, bronchitis was generally present. In five of the cases purpura existed as a complication, coming on in each instance during the third day of the rash. The expectant treatment was followed out to the fullest extent, and generally at the end of a fortnight the patient was discharged cured. There was no fatal cases of this disease. The character of the eruption in every instance was well marked.

The cases of pneumonia were quite numerous, and were for the most part caused by exposure to cold and wet. This disease was received in almost every stage, from the very commencement of the initiatory symptoms to the full development of hepatization. It could not be ascertained that the type of the disease bore any relation to the vigor of the constitution, as it was in the main asthenic. The interesting point of the treatment consisted in the fact that not a single man of the whole number treated—about one hundred—was bled, generally or locally, and not one died of the disease. How strangely this practice, which is now coming so much in vogue, contrasts with that of ten years ago, when the lancet was the first thing in the line of remedies that was thought of. The result could not have been better then than now. The treatment consisted mainly of very mild counter-irritation, with either dry cups, mustard, or iodine. The latter remedy proved to be very efficacious, especially in those cases where pleuritic pains were present. It was generally applied once a day. In two or three instances phthisis developed itself during convalescence, and in a short time terminated the patient's life. This tendency to the secondary development, so to speak, of phthisis, was also noticed in a maked degree in convalescent cases of rubeola. These patients, previous to the appearance of the eruptive disease, never had suffered from cough, from hæmoptosis, neither did they possess any hereditary right to phthisis.

The typhoid cases amounted to about one hundred and thirty. The disease as a whole was not of a very formidable character, two cases only fatal. Pneumonia, bronchitis, and also diarrhœa, were frequent complications. The first named complication existed in the two fatal cases referred to. Here, in the treatment of the disease, stimulants were used to their fullest extent of tolerance, and a suitable amount of nutritious diet was given at stated intervals. The stimulant which seemed to answer the purposes best was whiskey, in doses of eight or sixteen ounces per diem, made into a milk-punch.

Sometimes patients were admitted with a fever which resembled the first stages of the true typhoid, and seemed to have been caused by exhaustion and fatigue. This lasted but three or four days, rest and good diet being all that

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was required for its cure. It seemed to possess the character of that fever generally known as ephemeral.

The cases of pericarditis were, with one exception, caused by rheumatism. There was a remarkable collection of these cases, amounting to about forty. The principle complication was pneumonia. There was one remarkable case of pericarditis, where the friction sound lasted almost for thirty consecutive days, there being only three days during that time in which the sound could not be perfectly recognised. There was also made out a murmur with the first sound, heard at the apex (mitral regurgitative), and a murmur at the base with the first sound over the situation of the aortic valves (aortic direct murmur). The case was also of the greatest interest in connection with a point of treatment. The patient took an almost fabulous amount of whiskey, and for a week at a time had about twenty ounces a day. We hope in future to give the exact amount of the stimulant taken, besides a more minute history of the case. There have been no fatal cases, and in not one instance has mercury been prescribed. The treatment for the rheumatism was alkaline, consisting of a dram of Rochelle salts every two or three hours, according to the severity of the symptoms. Opium was also occasionally administered and stimulants always. Locally, counter-irritation in the form of blisters, mustard, and iodine, was employed. Wet cups were very rarely used, but dry cups were quite frequently resorted to.—*Amer. Med. Times.*

Selections.

Kousso as a Remedy against Tapeworm.—In the case of a young lady, Dr. H. L. Horton, of Morrisiana, N. Y., succeeded in expelling an entire tænia solium, sixteen feet long, by the use of two drams of kousso-flowers infused in half a pint of boiling water, the whole taken in half an hour, and followed by one dram of the oil of turpentine with an ounce and a half of castor-oil.—*Med. and Surg. Reporter; Cincinnati Lancet and Observer.*

Ricinus Communis as a Galactagogue.—In the case of a healthy vigorous woman, whose breasts did not secrete after two accouchements, although all the ordinary remedies were diligently applied, Dr. William Gilfillan, of Brooklyn, N. Y., resorted, on the fifth day after the second delivery, to the leaves of the castor-oil plant, for the purpose of bringing out the secretion. A poultice, made by pouring boiling water on the coarsely powdered leaves, was applied to each breast, and a teaspoonful of fluid extract of the leaves ordered three times a day. On the next day there was a moderate flow of milk, and it soon came pretty freely. The poultice had to be discontinued, the supply of the leaves being exhausted, but the extract was taken in the same dose for two days more. On the second day of its use the secretion became quite abundant and remained so, the child thriving remarkably well.—*Amer. Med. Times; Ibid.*

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Iodide of Iron.—In the *American Med. Times* for January 4th, our friend Professor S. R. Percy, has a lecture upon the iodide of iron. The lecture contains many ideas that deserve quotation, but our limited space will exclude much of interest. He says:—

"It is more used in the diseases of children than in those of adults. The scrofulous diseases of children, which are always accompanied with an anæmic condition of the system, are more successfully treated with this article than with any other in the materia medica. * * * In nearly every form of scrofulous disease, the syrup of the iodide of iron will be found of great service; for in all of these diseases you find glandular enlargements, which are benefited by iodine, and anæmia, which is relieved by iron. I have treated children with tubercular enlargement of the mesenteric glands with this remedy alone, when at first sight a cure would seem to be almost impossible, and when a change of air and diet could not be provided. In diseases of this description, I prefer, if possible, to give the remedy in small and very frequently repeated doses, as one drop every hour."

Professor Percy observes that the iodide of iron is invariably decomposed in the system—the iodine passing by the kidneys, and the iron by the bowels. —*From Dr. Gibbs' Weekly Summary, in Med. and Surg. Reporter.*

Case of Poisoning by Opium Treated by Belladonna.—A man who had drank about an ounce and a half of laudanum came under Dr. Motherwell's treatment at the Melbourne Hospital, deeply comatose, and with the pupils contracted to pin's head size. Doubting the propriety of treating this description of case by keeping the patient in constant motion, and the employment of galvanism, and desirous of testing the reputed antagonistic action of belladonna in overdosing from opium, Dr. Motherwell prescribed the tincture in such quantities that the patient had taken eleven drachms and a half in less than three hours. Effectual dilatation of the pupil did not take place until then, the patient rapidly recovering from the effects of both poison and remedy. This case being a solitary one, and the laudanum having been taken fourteen hours before the belladonna was begun, nothing very conclusive can be drawn from it; but Dr. Motherwell, in another case of opium poisoning, would not hesitate to preseribe still larger doses of belladonna, rousing the patient considerably or applying the cold douche for a minute or two when the coma was profound. —*Australian Medical Journal*; *Pacific Medical and Surgical Journal.*

Gargles of Tannin in Diphtheria.—Dr. Loiseau (*Jour. Méd. et Chir.*) employs in the earlier stages an aqueous solution of tannin as a gargle, occasionally swallowing a little, so as to reach every part of the throat. If not successful with this, he uses an alcohol solution or a chloroformized solution, of six parts of tannin to ten of alcohol, with one part of chloroform.—*Amer. Drug. Circular and Chem. Gazette.*

Kreasote Collodion.—As an antisceptic, Mr. Stanislaus Martin employs a combination of fifteen parts by weight of kreasote and ten of collodion. The solution is of a gelatinous consistency.—*Ibid.*

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PERSULPHATE OF IRON ON POLYPI.—Dr. Holmes, of Chicago, (*Chicago Med. Jour.*, May 1862) gives several cases of extinction of polypus in the ear by the solution of persulphate of iron, which acts as a mild caustic without causing pain.—*Am. Drug. Circular and Chem. Gazette.*

TINCTURE OF THE OLEO-RESINS OF STILLINGIA AND LOBELIA is recommended by Dr. Scudder of the Cincinnati Eclectic Institute, as an efficient remedy for the control of long standing and obstinate coughs depending upon irritation of the respiratory passage, as in chronic laryngitis, bronchitis, and even in phthisis. The tincture is prepared by dissolving two fluid drachms of the so-called oil of stillingia, one fluid drachm of oil of lobelia, in three fluid ounces of alcohol. The dose is to be one or two drops on a lump of sugar every four hours: the sugar should be allowed to dissolve slowly in the mouth, and no fluid be taken at the same time, or for a few minutes thereafter. The oleo-resins are prepared from the root of *Stillingia sylvatica* (Nat. Ord. *Euphorbixce;* Sex. Syst. *Monœcia Mond,*) and in the seeds of *Lobelia Inflata*, by the officinal process for *Extractum Cubebæ Fluidum. U. S.*—*Am. Drug. Circular and Chem. Gazette.*

TRAUMATIC TETANUS.—The *Lancet* publishes a case of traumantic tetanus successfuly treated with opium and belladonna poultices, by Dr. S. Cartwright Reed. The patient was a lad of healthy appearance aged 17, who was knocked down by a cart, a wheel grazing the side of his head, nearly tearing away the right ear, and fracturing the right maxilla at its symphysis. Notwithstanding a careful dressing of the wound gangrene supervened in twenty-four hours, which made it necessary to remove the ear, when a linseed poultice was applied and saline aperient administered. The wound progressed unfavorably, and on the third day tetanic symptoms began to show themselves. An aperient draught was ordered immediately, and linseed poultice with a drachm of opium powder applied to the wound. The next day belladonna mixed with glycerine was substituted for the poultice, and one grain of opium with two of calomel given at night. Slight improvement was soon apparent and the treatment continued, substituting mercurial ointment for the glycerine, and after the sixth day the tetanic spasm gradually disappeared and the body rapidly recovered.—*American Medical Times.*

OPIUM IN DELIRIUM TREMENS.—Dr. D. L. D. Sheldon, of New York, gives us the following item of practical experience in the use of large doses of opium in delirium tremens. He says:—

A few years since I treated a case (I am sorry to state a *physician*) with delirium tremens, it being the *fifth* time in less than the same number of years I had attended him for his trouble. He tolerated a very great quantity of opium and its preparations. *At this time* I commenced the treatment with a *liquid* equivalent to *two* grains of opium every *fourth* hour, then increased with careful attention, to *three, four, six*, and *eight* grains every *fourth* hour, and lastly *twelve* grains every *fourth* hour, terminating with the *third twelve*-grain dose,

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which produced the desired effect. The patient slept about six hours, not *very* sound, without stertorous breathing; awoke, soon fell asleep again, and slept *well* about the same length of time; after which I had no further trouble with him, as he was then capable of getting along with domestic attention. I am not able to state the precise quantity taken within about four days; but it must have been not far from one hundred and twenty grains—averaging one and a quarter grains per hour. Although my purpose of cure was effected, I cannot state, as did the editor of the *Pacific Med. and Surg. Journal*, that "this case *alone* determines, in our estimation, the innocuousness of opium in enormous doses."—*Med. and Surg. Reporter.*

Potassio-tartrate of Iron in Rheumatism.—Rheumatism is one of those affections which at times resist all the ordinary modes of treatment in use, though occasionally it will readily yield to a remedy not commonly employed in that affection. This result we have observed in a case under Dr. Willshire's care, in the person of a somewhat pallid girl, with rheumatism of an erratic character, the pains flying about, as it were, to various parts of the body. To this she had been subject for the last three years, and nothing seemed to produce any marked improvement; she was, therefore, ordered a mixture containing the potassio-tartrate of iron, which has produced a decidedly beneficial effect in a short period of time, the pains having become gradually diminished, but not as yet wholly gone, and her health is better. In obstinate and suitable cases, this excellent preparation of iron should be borne in mind.—*Lancet; Chicago Med. Examiner.*

Narcotic Treatment of Delirium Tremens.—Professor Roser, of Marburg, discards small doses of opium in mania-a potu, but gives at once two grains of morphia followed by one grain every hour until the pupils are strongly contracted, and the number of respirations reduced to ten, eight, seven, or even six per minute.—*Am. Drug. Circular and Chem. Gazette.*

Food in Typhoid Fever.—Dr. Hérald confirms the opinion expressed some time ago on this continent as well as in England, that in the management of typhoid fever the all-important, the capital question is that of food; prolonged abstinence leads to the most disastrious results. One lady patient was sinking steadily under a strictly enforced abstinence; when the pulse numbered 120, nocturnal agitation with wandering delirium, vomiting and diarrhœa had set in, the effects of nutriment were tried. At first, only a few drops of iced beef-tea could be swallowed with the utmost difficulty; by and by the food remained on the stomach, and in proportion to its increase, the pulse fell, the delirium yielded and the patient recovered. Mr. Marotte has established that vomiting, diarrhœa and delirium, more especially the latter, are characteristic of starvation. Trouseau also lately pointed out the striking analogy existing between the more serious symptoms of typhoid fever and those of autophagy consequent upon protracted abstinence.—*Berkshire Med. Jour., from Champonniére's Jour.; Chicago Med. Examiner.*

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ADVANTAGES OF EARLY VACCINATION.—The annual report of the Vaccine Committee was read at a recent meeting of the French Academy, in which the question of early vaccination was fully discussed. M. Depaul, the reporter, states, that in spite of the opposition raised to the vaccination of new-born children, the researches of the committe tend to show that this operation is not more dangerous in very early life than at the second or third month. In private practice, where the chances of variolous infection are much less than in the wards of an hospital, vaccination may, as a general rule, be delayed; but in the latter case such delays are dangerous, for, from one hour to another, cases of smallpox may be admitted. "If all children," continues M. Depaul, "were vaccinated within the first two or three days after birth, smallpox, all ready rare now in comparison with what it was formerly, would, we are convinced, completely disappear. This result has already been obtained by certain zealous vaccinators in the provinces. Such a rule should be all the more stringent in the case of Foundling Hospitals, as a means of diminishing the already too great mortality, and of preventing the spread of infection in the provinces by means of children in whom vaccination has either been ill-done or altogether neglected." In the subsequent discussion, M. Robert suggested that very possibly the dangers (and among them erysipelas) alleged as incident to early vaccination depended upon the plurality of incisions made for the introduction of lymph.—*Boston Med. and Surg. Journal.*

DIARRHŒA AMONG CHILDREN.—Bearing upon this subject, we beg leave to refer to another paper. In the *Oglethorpe Med. and Surg. Journal* for May, 1860, Dr. J. S. Rich, of Florida, has an article upon the treatment of *cholera infantum.* He says he has seen much of the disease, but his success was not remarkable until, in 1855, he commenced treating with large doses of quinine. Among others, he reports the case of his own child. We quote his treatment. The following was ordered:—

"℞ Calomel.....grs. iij;
Sul. quinine.....grs. v;
Ol. turpentine.....gutt. xx;
Honey.....℥j.

Mix. S., give at one dose,"

In the course of some twelve hours this dose was repeated, (omitting the calomel.)

"Under the influence of these doses, for the period of some thirty-six hours, I could not detect any other effect of the quinine than a most profound and salutary sleep; the pulse, which had been much too frequent, irregular, thread-like, and fluctuating, became slow, as in health, and firm; the skin was continually moist with warm perspiration; the kidneys acted most copiously; bowels acted twice, the last showing that the liver was performing its healthy functions. The most remarkable change was the disappearance of the general cadaverous aspect and *graveyard odor.* The return of appetite and general powers of digestion was extraordinary."—*From Dr. Gibbs' Weekly Summary, in Med. and Surg. Reporter.*

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Belladonna in Mammary Inflammation.—Dr. J. J. Lescher, of Mount Carmel, Ill., confirms the value of a watery solution of the extract of belladonna as a local application to inflamed breasts. Since his first trial of it he had repeated opportunities of confirming his good opinion of this agent. With but one or two exceptions, entire success followed its application. In several cases its timely use saved lancings and counter-openings, whilst in prior confinements the patients had endured all the tortures of abscess.—*Chicago Med. Examiner; Cincinnati Lancet and Observer.*

Cure of Tape-Worm.—In his clinique at the Queen's Hospital, Dr. Fleming has made comparative trials of male fern, kamala, kousso, sprigelia, and other vermicides. He found them all to be useful, but the first the most efficient and the safest, giving at bedtime one dram of the oil of male fern in half an ounce of gum Arabic mixture, with an ounce and a half of sweet milk. The patient must omit the dinner and evening meal of that day. Kamala is often very efficacous as a worm-killer, but less so than the male fern, while its action on the bowels and secondary depression of the system are often unduly severe.—*Med. Times and Gazette; Med. and Surg. Reporter; Ibid.*

Use of Triticum Repens.—An infusion of one ounce of the dried and cut root, in a pint of boiling water, has been employed by H. Thompson, in quantities varying from twelve ounces to a pint in twenty-four hours, with remarkably good effects against the following affections: vesical irritability from inflammation of the prostatic and neck of the bladder; severe gonnorrhœa, especially when the inflammation extends backward; the pain and spasm caused by calculus on aggravated stricture of the urethra; some obscure diseases of the bladder; prostrate enlargement in elderly patients, and renal calculus. Wherever micturition is very frequent or painful, depending on hypersensibility of any part of the urinary passages from acute or subacute inflammation, the symptoms are mostly relieved and the urine becomes clearer. If improvement follows, it generally does soon after commencing the medicine; if none can be observed in four or five days, it is not worthy to be continued. It is important to gather the plant in the spring, shortly before the leaves appear, to dry the stem slowly without artificial heat, and to cut it into short lengths for use.—*Dublin Med. Press; Amer. Med. Monthly; Ibid.*

Pharmacy.

FERRATED ELIXIR OF BARK.

By James T. Shinn.

Among the pharmaceutical novelties recently brought to the notice of physicians, this preparation of Iron, Cinchona and Brandy, is one of the most agreeable, and consequently may prove very popular with patients.

Where an after-dinner stomachic and excitant is required with the tonic effect of small doses of Cinchona and Iron, this Ferrated Elixir of Bark will

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answer admirably, one objection to its use, however, being the danger of engendering a taste for spirituous liquors.

Not being aware of the publication of any formula for making it, the following is offered as having given satisfaction.

℞ Calisaya Bark in powder No. 60,.....four ounces.
Cinnamon water,.....two pints.
Caraway water,.....one pint.
Tincture of fresh Orange Peel,.....half a pint.
Alcohol,.....half a pint.
Brandy,.....two pints.
Syrup,.....three pints.
Pyrophosphate of Iron, (with Citrate of Ammonia) in scales,.....two ounces.

Mix the caraway and cinnamon water with the tincture of orange peel, and percolate the bark with the mixture. Dissolve the pyrophosphate of iron in the percolate, add the alcohol, brandy and syrup, and filter if necessary.

The formula for the Elixir of Bark is based upon one by A. B. Taylor, published in the Journal of 1859. When made in that manner, however, a precipitate occurs in a short time, rendering it turbid and unsightly. By treating the bark with an aqueous menstruum, and afterwards adding enough alcohol and brandy to preserve it, less of the cinchonic red is taken up, and the preparation remains clear much longer, though my experience is not yet sufficient to say that no deposit will eventually take place.

The Tincture of Orange peel is made by macerating the finely divided fresh rind in deodorized alcohol, using a pound to the quart; it is a delicious flavorant and keeps well, some now a year old being as good as at first. The object of mixing it with the aromatic waters is to remove the resulting cloudiness by percolation, and if the tincture is not on hand it would probably be preferable to rub the fresh rind with the sugar for the syrup, thereby furnishing a purely aqueous menstruum in greater quantity.

The pyrophosphate is the most suitable of all the salts of iron for prescribing with preparations of Peruvian bark, on account of its not blackening with the tannin of cinchona and its freedom from chalybeate taste. A very convenient form in which to keep it is the solution of Dr. Squibb, as given in the Journal of 1860, page 37, with the addition of a few drops of oil of cinnamon or cloves, to prevent moulding. With this the Syrup or Ferrated Elixir may be made easily and quickly.

Some of the imported article in scales became, after a time, quite insoluble in water, and required the addition of ammonia for its ready solution. Although not darkened by infusion of cinchona, the color deepens considerably on the addition of brandy, which contains tannin, derived from the cask.

The Ferrated Elixir of Bark, prepared as above, contains about one grain of pyrophosphate of iron and citrate of ammonia, and two grains of cinchona bark in a fluidrachm, and is very agreeable in taste and appearance. The proportion of iron may be increased without rendering it unpleasant.

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SYRUPUS STILLINGIÆ COMPOSITUS.

By Joseph A. Heintzelman.

For some time back I have received prescriptions for an Eclectic preparation, a compound syrup of stillingia, which, being unofficinal, I obtained of several Eclectic druggists of the city. But of late the call has been so frequent that I now prepare the syrup by the gallon.

I first examined the recipe described in King's Dispensatory, and have found it to yield a very valuable preparation when the manipulation is rightly conducted.

Most of the ingrdients of this syrup are from our own fields, growing in different localities of the United States, and physicians should be encouraged to prescribe medicines from sources near home instead of foreign substances. As it is likely to become a popular medicine, and the formula published not being without objections, I take the opportunity of offering the result of a satisfactory experiment. In examining King's Eclectric Dispensatory, I found the manipulation tedious and not strictly scientific; the measure of menstruum used is larger and more costly than necessary, and what has been gained by extraction, is lost by evaporation and superfluous boiling. Of course, if the strength of such a preparation should be estimated by its *color*, it may be called a good preparation, as it is a dark brown almost black syrup, depositing, after a time, much sugar in crystals owing to the large amount of alcohol retained, and containing little of the fine flavor, depending on the very volatile matter, which, at careful evaporation, is preserved, but entirely destroyed by long continuation of boiling.

℞ Queen's root, (Stillingia sylvatica,).....
Turky-corn root, (Cordyalis formosa,) each..... ℥ vj.
Blue flag root, (Iris versicolor,).....
Elder flowers, (Sambucus,) ....
Pipsissewa leaves, (Chimaphila.) each ..... ℥ iij.
Coriander seed.....
Prickley ash berries, (Xanthoxylum fraxineum,) each ℥ iss.
White sugar, seven pounds, avoirdupois.
Alcohol and Water, each, a sufficient quantity.

Bruise and grind the ingredients to get the coarse powder through a sieve of 18 meshes; mix 3 pints of alcohol with 3 pints of water, and dampen the powder with 1½ pints of this mixture; put into a conical percolator and set aside 24 hours to macerate. Displace after expiration of that time with remaining portion of said menstruum; when it has disappeared from the surface of the mass pour on another mixture of 1 pint of alcohol and 2 pints of water and displace again. The 2 pints of water which I use as a third menstruum is to displace a portion of the remaining diluted alcohol in the mass, after which time all the active matter is taken up. Evaporate the saturated tincture on a water bath and at a temperature not exceeding 112° F. to 4 pints. Filter while hot, and if it measures less than 4 pints, add enough distilled wa-

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ter. Finally dissolve in the filtered liquid 7 lbs. avoirdupois white and *best* sugar; bring to syrup by boiling, skim off the coagulated substances and strain.*

This syrup is based on different principles from that prepared according to King's Dispensatory, is permanent, answering for all seasons of the year, less expensive to the manufacturer and buyer, of a clear and rich color, peculiar but pleasant taste and odor, reminding very distinctly of the substances employed before their extraction, and speaks for itself that the virtues are taken from and retained in by the above manipulation. The syrup is recommended and used extensively as an effective alterative in syphilitic, scrofulous and glandular diseases. The dose is a teaspoonful, to be taken three or four times a day; it is also prescribed combined with iodide of potassium in the proportion of 15 grains to 1 fluidounce of syrup, a teaspoonful of it taken three times a day.

NOTE.—If the ingredients for this syrup could be had in powder of at least 40 meshes to the linear inch, the amount of menstruum could be considerably reduced, and the syrup made at less expense. The practical suggestions of Professor Procter in his Essay on Fluid Extracts should be studied by every druggist. The "Swift" mill or similar mills, which *must* at present answer for pharmaceutical purposes on a small scale, and where mortar and pestle prove fruitless, are not the *practical* mills we now need. I have never been able to grind certain roots, barks, herbs, etc., to finer powder than will go through a sieve No. 18 or 20; and even then only with a great deal of labor and loss of time. To break up drugs of hard or tenacious fibres it will answer well enough, but to grind to a fine powder to go through a sieve of No. 40 or 60, we want certainly an improvement. Not long since I spoke on that subject to Mr. N. Spencer Thomas, who has planned out a mill similar to his large one, and says that the pattern has been of considerable expense to him, but he will get up a mill suitable for powdering small quantities, if he can only find a sale for it. A mill of that kind is as useful as a mortar, and will repay the cost in a short time by the saving of time and materials now idly spent.—*American Journal of Pharmacy.*

A QUICK AND EASY METHOD OF PREPARING SULPHATE OF CADMIUM.

This method, adopted by the author, is nothing more than the application of the fact observed in 1792 by Richter, that a metal plunged in a saline solu-

* The author in our opinion, has hardly done justice to the formula in King's Dispensatory. That formula is based on the fact that at least two of the ingredients owe their virtues to oleoresins. Hence the mixed powder is percolated with a strong alcohol, (76 per cent.,) till a pint is obtained, which removes the greater part of these constituents, and is reserved to the last. The ingredients yet containing alcohol are afterwards exhausted by water, and a syrup made from this solution (after distilling off any alcohol it may retain) with 6 pounds of sugar, so as to reduce it to 7 pints. To this, when nearly cold, the pint of reserved tincture is added and mixed to obtain a gallon of syrup. The turpid character of the syrup thus made is owing to the oleorsinous ingredients, which are deemed valuable, and can only be retained by submitting to this partial solution.—*Ed. American Journal of Pharmacy.*

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tion substitutes itself for the metal, which forms the base of the salts employed. A quantity of crystallized sulphate of copper, say 100 grammes, is dissolved in water, and a piece of cadmium, rather more than is necessary to saturate all the sulphuric acid, or in this case more than 44·59 grammes, is plunged into the solution. The whole having been allowed to stand for some time, the precipitated metallic copper is then separated by filtration and the liquid slowly evaporated. If during the evaporation the neutral solution of sulphate of cadmium should deposit a small quantity of sesquioxide of iron, which not only constitutes an impurity, but gives the salt a bad appearance, it is necessary to expose the solution to the atmosphere until all the iron which it may contain has been eliminated, which is accomplished when after a second filtration the transparency of the solution is no longer disturbed. To obtain finally the sulphate of cadmium in well-formed crystals, it is necessary to acidulate the solution slightly with dilute sulphuric acid.—*Repertoire de Pharm. from Journ. Md. Col. of Pharm; Jour. of Pharm.*

TONIC AND STIMULANT FOR THE HAIR.

We have used the following prescription with great satisfaction for a number of years, and unhesitatingly recommend it to our readers:—

℞ Quinine sulph. ..... ʒ ss;
Acid. sulph. aromat. ..... f ʒ ss;
Tinct. cantharidis ..... f ℥ ss;
Myroxylon. ..... f ʒ j;
Eau de Cologne ..... f ℥ vij.
M. Ft. lotio.—*Med. and Surg. Reporter.*

ACETUM IPECACUANHÆ.

Mr. G. Johnson proposes to macerate two and a half ounces of ipecacuanha, finely bruised, for twelve hours, in five fluid ounces of acetic acid, to add then thirty-five ounces of water, and continue the maceration for twenty-four hours longer, with frequent shaking. The solution is then filtered and the residium strongly pressed. It is nearly double the strength of well-made ipecacuanha wine, and has been tried with good effect as an expectorant and emetic. The claimed advantages are that this preparation is cheap, can be made of uniform strength, and will keep for a long time.—*London Pharm. Jour.; Cincinnati Lancet and Observer.*

SEDATIVE PILLS.

The *Moniteur des Hôpitaux* gives the following formula as most efficacious against sleeplessness in hysteria, mania, hypochondria, etc., as well as for the relief of the dry cough to which nervous women with irregular menstruation are liable.

℞ Assafœtida, one dram; sulphate of morphia, three grains. To be divided into thirty pills. One or two at bed-time.—*Nashville Journal of Med. and Surg.; Ibid.*

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WINE OF CITRATE OF IRON AND QUINIA.

By Sam. Campbell.

℞ Sulphate of quinine, 140 grains; citric acid, 120 grains; citrate of iron, 600 grains; diluted sulphuric acid, 3 fluid drams; liquid ammonia, distilled water, of each q. s.

Rub the quinia salt until perfectly miscible with four ounces of distilled water; then add the diluted acid, pour the whole into a decanting vessel and add the solution of ammonia, until it ceases to form a precipitate, being careful not to have the alkaline solution in too great an excess. The precipitate is to be carefully washed with distilled water until the washings cease to evince any further evidence of alkaline reaction upon litmus-paper previously reddened with an acid. The hydrated quinia is then incorporated with the citric acid and citrate of iron, previously dissolved in three ounces of boiling distilled water. When completely dissolved, add sufficient distilled water to make the whole measure thirteen fluid ounces. Eight fluid drams of this solution contains eight grains of the double salt. By mixing two fluid drams with six of pure sherry wine, a solution is obtained containing in each teaspoonful two grains of the salt.—*Amer. Jour. of Pharm.; Lancet and Observer.*

ARNICA HAIR WASH.

℞ Elder water, half a pint; sherry wine, half a pint; tincture of arnica, half an ounce; alcoholic ammonia, one dram. Mix in a lotion bottle, and apply to the head every night with a sponge. Wash the head with warm water twice a week. This will be found of great service, when the hair is falling off and becoming thin from too frequent use of castor, macassar oil, etc., or when premature baldness arises from illness.—*Druggist; Ibid.*

Editorial.

Death of Prof. E. K. Sanborn.—We are pained and saddened at the recent intelligence of the death of our former friend and class-mate, Dr. Eben K. Sanborn, Surgeon of the 31st Massachusetts Regiment, and Professor of Surgery in the Berkshire Medical College. He died at Ship Island from disease, thought to have been induced by over exertion. With the deepest sorrow we record the death of one so gifted, and who in his official relations, with the community and the profession, has been so highly esteemed. His loss will be severely felt, as few men of his age, had attained so high a position.

He was educated under the instruction of Dr. Kimball, of Lowell, one of the first surgeons in the country, and graduated in medicine at the Berkshire Medical College, in the class of 1847. After a time of study and observation in several European Hospitals, he returned to this country, and held the Professorship of Surgery in both the Berkshire and Vermont Medical Schools, where he had earned a well derserved reputation in his department of surgery.

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At the commencement of the war he left a lucrative practice and the duties of his professorship and went with a Vermont regiment to Fortress Monroe, and as Post Surgeon at Newport News, was very efficient. His health was seriously impared while there; but after a brief sojourn in Rutland, he entered again into the service of his country. He was one of the most enthusiastic of his profession, of highly inventive genius, possessed of rare qualities for the various emergencis of military surgery.

He died April 3d, and his remains were shipped in the Black Prince for Boston, but on the 9th, on account of some inperfection in embalming, it become neccssary to consign the body to the deep, which was done with appropriate funeral solemnities. Thus ends the mortal life of one, of the many of our profession, who have gone at the call of duty and country, if not to face the cannon's mouth, to brave not only its dangers, but to war with another and more deadly foe; to fight hand to hand with death; not death, as it comes kindly and gently to relieve the worn sufferer in the flower scented chamber of opulence, after long years of gradual decline; not death as it comes with loved ones near to wipe the cold brow and smooth a dying pillow, but grim, gashtly and unwelcome; as it comes in battle, in camp, in plague; as it comes in all the untold and inconceivable horrors of war. Our country requirs the sacrifice and God will remember the true and faithful; yet we mourn that one so young and brave, should die.—*Buffalo Med. and Surg. Jour.*

Conservatory in the Central Park of New York.—We perceive that the Central Park Commissioners have contracted with Messrs. Parsons & Co., of Flushing, for the construction of a grand conservatory, the largest in the United States, upon the Park grounds. The building is to be a "Crystal Palace" of iron and glass, 200 feet long, 70 feet wide, and about 50 feet high. Its base will be a parallelogram, and there will be three stories, curving inward like the successive folds of a turban. The conservatory will front Fifth Avenue; its centre being opposite Seventy-fourth Street; and directly in its rear will be a beautiful little pond, with walled sides of a symmetriacal shape, which will be built during the coming two years. When the Fifth Avenne is graded to its proper height, it will be on a level with the second story of the proposed conservatory, and the main entrance to the edifice will therefore be on that story. Stairs and balconies will give access to every portion of the building. The contract provides that the grantees must erect the building entirely at their own expense, after the plans already agreed upon; that they must place in it nothing but flowers or rare trees or plants; that they shall be allowed to sell bouquets, etc., to visitors; that the public shall always be admitted free; that good order shall always be maintaned inside, at the expense of the grantees; and that the work shall be completed by the 1st of January, 1864. The specifications of the contract are minute, and are believed to cover the objections which might be made to the granting of a monopoly of such a character. The grantees, on their parts, agree to pay a rent which will add considerably to the revenues of the Park. The conservatory will cost about $50,000.—*American Medical Monthly.*

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Narcotics.

BY JOSEPH BATES, M. D.

I shall adopt TULLY'S definition of this class of medicinal agents. He says: "Narcotics are articles which in the first degree of their operation, directly allay morbid irritability and irritation, and irritative actions generally, morbid sensibility and sensation, morbid mobility, restlessness, jactitation and wakefulness, when they are connected with a non-phlogistic or a positively atonic condition of the system; in the second degree of their operation, they directly relieve pain; in the third degree of their operation, they directly produce more or less somnolency, or even positive sleep; in the fourth degree of their operation, they produce vertigo, headache, faintness, dimness of sight, the sensation of a cloud before the eyes, or some imperfection of vision, either with considerable dilatation, or great contraction, or an immovably fixed, but otherwise natural state of the pupils, nausea and retching, with epigastric uneasiness, especially when the head is raised, or otherwise much moved, accompanied with small and irregular pulse, cold extremities, cold, clamy, and slippery sweats, delirium, convulsions, either chronic, sub-tonic, or exquisitely tonic, succeeded by coma, and sometimes death; and when the narcotic has no other medicinal power conjoined, without any other accompanying operations."

The term narcosis denotes the operative effects of a narcotic.

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Dr. TULLY calls the first degree of a narcotic operation antirritant; the second, anodyne; the third, soporific or hypnotic; and the fourth, ultimate narcotic. Many of the narcotics possess different and distinct additional powers. An alterative or adenagic power is found associated with a narcotic power in some agents of this class. Digitalis purpurea and Conium maculatum are decidedly narcotic in their operation, and both possess alterative or adenagic properties in an eminent degree. Nicotiana tobacum is narcotic and adenagic, and possesses other powers in addition. Its emetic and cathartic powers are distinct from its narcotic or alterative; its diuretic power is regarded only as a part of its alterative or adenagic operation.

Dr. TULLY remarks, that "digitalis, which is commonly reckoned as a mere diuretic narcotic, is certainly adenagic, if the power of producing a direct resolution of certain phlogoses is any evidence of an adenagic power. "All the other diuretic narcotics," he observes, "within my knowledge are in the same predicament."

Papaver is the most certain and effectual diaphoretic in our list of medicinal agents, and also the most important narcotic. Camphor is not only narcotic and diaphoretic, but has strong claims for other separate powers. Wine and alcohol possess not only narcotic but stimulant properties, and some attribute to them diaphoretic. Colchicum autumnale is thought to possess narcotic powers as well as cathartic, emetic, alterative and diuretic; though its last operation is doubtless due to its preceding (alterative).

It has been remarked by an author, that the practical character of a physician may be more accurately judged of, by his skill and tact in the management of opium, camphor, wine and alcohol, than by his management of any other article, or group of articles, in the whole materia medica. Physicians who use narcotics successfully in their practice, do not so much regard the quantity which they prescribe, as they do the effect. When any particular agent of this class has been selected to subdue a symptom, or a combination of symptoms, it should be continued in doses sufficiently large to accomplish the object, unless its specific effect upon the system, forbids its further continuance. Ultimately, when the narcotic operation is carried to its highest point, it terminates in complete insensibility. This state may be produced by all of the

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agents of this class with the exception of lactucarium and lupulin, and is commonly associated with evidences of cerebral congestion, such as convulsions, and feebleness of the circulation, coldness of the extremities and of the whole surface of the body.

Dr. STILLE remarks, that "the only medicines of the present class which are known to have caused death, are opium, hyoscyamus, belladonna, and stramonium; and the only post-mortem lesions attributed to them, are congestion of the brain and spinal marrow, lungs, heart, and great vessels." I should remark that Dr. S. does not include prussic or hydocyanic acid in his list of narcotics, but classes it with sedatives. EDWARDS and VAVASSEUR include prussic acid in their list of narcotics.

Dr. STILLE thinks that there are very few conditions for the use of narcotics which cannot be fulfilled by opium alone. The principal exceptions to this rule are, the treatment of neuralgic affections and the relaxation of sphincter muscles, in which belladonna and stramonium are more efficient, and the resolution of spasmodic action generally, for which purpose these medicines, and also cannabis, are peculiarly appropriate.—(STILLE.) Narcotics are used principally to relieve pain and subdue irritation. A great proportion of the various diseases incident to human life, are accompanied with one or both of these symptoms, and therefore require in some of their stages, the use of this class of medicinal agents.

Irritation may manifest itself by abnormal action with or without pain, and both of these manifestations narcotics have the power to control; hence in the hand of a good surgeon, no less than in that of a physician, this class of remedies becomes almost universal in its range of application. In every period of human life, from cradled infancy to the infirmities of age, narcotics hold the most prominent position in the treatment and cure of disease. EDWARDS and VAVASSEUR remark, that "most of the remedies endowed with narcotic powers, or properties, are vegetables remarkable for their virose smell; and most of them owe their activity to the presence of a peculiar principle, of the nature of organic alkalies; others, the odor of which is not less characteristic, contain hydrocyanic acid as their active principle. They continue:— "We have recourse to narcotics principally as a means of soothing pain and producing sleep. Administered in a proper manner, they may be useful in the treatment of neuroses in general, neu-

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ralgia, rheumatic, and other pains, fevers attended with nervous symptoms, in the last period of cancerous affections, etc."

It is altogether unnecessary to enumerate the diseases in which narcotics are required; as there is hardly a complaint which does not occasionally present a complication of symptoms demanding their use. They effect young persons much more intensely than they do adults, and, as Dr. STILLE very justly remarks, "much more than can be accounted for by the mere difference of age." He continues:—"It cannot be amiss to recall attention to this fact, an ignorance or a neglect of which has frequently led to the most deplorable results. All narcotics loose their effects by repeated administration. This is the case with all agents whatever, which affect directly the nervous system. The habit of using narcotics must, of necessity, regulate to some extent the dose prescribed.

HYOSCYAMUS NIGER.

According to the artificial classification of the vegetable kingdom, this plant belongs to class Pentandria, order Monogynia.

Generic Description.—Calyx tubular, five cleft; corol funnel-form, five-lobed, obtuse irregular; stamens inclined; capsule two-celled, covered with a lid.

Specific Characters.—Flowers yellow and purple. Blossoms in July. Bienniel; leaves clasping, sinuate; flowers veiny, sessile. It grows from two to four feet in height; the leaves are large, long, deeply incised, like the stem or stalk, hairy, and of a pale green color; soft and downy; pointed at the ends.

Hyoscyamus is derived from two Greek words, us, (ous) a hog, and kuamos, a lot or measure, because it is good enough for hogs. Probably named by a Jew. Its popular name is henbane; this appellation refers to its poisonous effect upon fowls. This plant is a native of Europe, but naturalized in this country. It grows abundantly along the roads, around villages, amidst rubbish, and in uncultivated places, in Great Britain, France, and Germany.

In the United States, it is found more commonly in the northern and eastern portions. It grows spontaneously at Detroit, and Upper Canada, and in the vicinity of Buffalo, and Ticonderoga. All parts of the plant are medicinal, the leaves and seeds being officinal, and yield their virtues to alcohol and water. The leaves

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should be gathered at the time of its full inflorescence, and the seeds when perfectly matured. The leaves of the second year's growth are more active than those of the first. The whole plant has a rank, offensive smell, and possesses powerful narcotic properties.

The active priniple of hyoscyamus, *hyoscyamia*, is soluble in water, alcohol, and ether, and is an active poison.

Medical History.—"Hyoscyamus," says Dr. STILLE, "has been recognized as a medicinal agent from the earliest periods of medical history. Many of the ancient writers, indeed, draw distinctions between the several varieties of the plant from which the extract is procured, condemning two of them as unfit for medicinal purposes on account of their virulent qualities. One of these, the black, is that most generally employed at present; while in France, this variety, and also the white, which the ancients alone admitted into medicine, are used as possessing identical properties. Although this agent was never, as some writers say, entirely disused, it nevertheless fell into comparative neglect during the eighteenth century, until it was introduced anew to the confidence of physicians by the publication of STÖRCK in 1762, since which time it has continued to hold a rank among narcotic medicines."

The *Lancet* of 1849, p. 431, mentions an instance in which tincture of hyoscyamus was administered for inflamed testicle, in half-dram doses, and continued three times a day for four days, when it suddenly produced the premonitory symptoms of apoplexy. In the same vol., p. 230, ROBERT DICK, M. D., speaks of hyoscyamus niger as a valuable medicinal agent, but thinks that the range of cases in which it is useful is more limited than that of the hop. He however admits that it suits cases in which the hop would be inefficient. There are cases of stomachic irritability, whether nervous or vascular, in which a pretty powerful direct sedative is required. The hop is, in such circumstances (he considers), too feebly sedative, besides being tonic and slightly stimulant. He regards opium as ineligible, as it often stimulates instead of allaying irritation; and besides constipates the liver, the pancreas, and every secretion along the mucous membrane, and suspends the functions of the motor nerves of the pristaltic muscles. Hyoscyamus is, to a great extent, and in most cases, free from these objections.

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In the school of Giacomini, hyoscyamus is reckoned among hyposthenizing cephalic agents. COPLAND mentions favorably the use of hyoscyamus in combination with cathartics, for the cure of constipation. He also recommends hyoscyamus suppositories or ointment for the relief of the patient, if alvine obstruction be apparently owing to organic, malignant, or other diseases about the uterus, its appendages, the vagina, or rectum; or to spasmodic constriction of the sphincter ani, excited by inflammatory irritation in its vicinity, or by hæmorrhoids. In biliary concretions, DURANDE'S remedy was sulphuric ether and spirits of turpentine; which COPLAND recommends combined with the tinct. of hyoscyamus; and says he has used it with marked effect. In the treatment of colic and ileus, with great distention of the abdomen, and diffuse, but not acute, tenderness, obstinate costiveness, retchings, particularly when substances are taken into the stomach, anxiety, and general uneasiness, he recommends from ten to twenty grains of calomel in combination with hyoscyamus. In the treatment of colic from injurious ingesta, he administered antacids combined with henbane. To relieve spasms attendant upon asthma, this agent is recommended by the same author; also in the treatment of ophthalmitis arthritica, in conjunction with calomel. WOLFF, WIGAND, and JOERDENS recommend this agent in the treatment of hooping-cough. This agent has been administered in difficult menstruation, and some recommend it in the form of suppository, others as an enemata.

Action on Animals.—Swine eat it with impunity. Cows and sheep are said not to be injured by eating it. According to ORFILA'S experiments, it acts upon dogs as upon the human species. Hyoscyamia is poisonous to rabbits, although twenty times the quantity of a strong alcoholic extract does not injure them.—(STILLE.)

Action on Man.—Some writers say that the effects of hyoscyamus are the same whether it be taken into the stomach or bowels, or applied to the denuded cutis. M. RATIER took, fasting, ten grains of a carefully prepared alcoholic extract, from which he experienced, in about an hour, headache, which became rapidly more severe, pastiness of the mouth, and a savor which he compares to that of a mixture of sweet and bitter, which masked completely the taste of sapid bodies. The tongue was covered with

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white fur, the throat hot and dry, skin warm and moist, and the pulse slightly accelerated. A short slumber ensued, awaking from which, his pupils were so dilated that most of the iris was invisible; vision indistinct, walked with a tottering gait, and felt a numbness of the lower limbs. These symptoms disappeared in four hours, the dryness and taste in the mouth continued during twenty-four hours. Mr. JUDD, from a full dose, was chiefly attracted by a fluttering movement of the heart, and a corresponding rapidity and smallness of the pulse. The sense of touch was much impaired, the muscles of volition were affected with spasms, and the bladder could not be evacuated but by repeated efforts. SCHROFF'S opinion of the action of this agent upon the circulation, is, that it invariably diminishes the frequency of the pulse, when taken in small doses, but says that its ordinary rate is soon resumed. HIPPOCRATES and DIOSCORIDES state that hyoscyamus is capable of exciting delirium, which the latter compares to that of drunkenness. SCRIBONIUS LARGUS states that it gives rise to quarrelous delirium with altercation. A case is recorded of two female servants who had to prepare and apply repeatedly a fomentation of henbane leaves to their mistress; they were seized with delirium and vomiting, quarrelled, and at last came to blows. Two persons who were drying henbane seeds upon a stove, became intoxicated by the fumes, made extravagant gestures and finally fell to fighting. Dr. STILLE cites an amusing narrative which he relates from WEPFER of the effects produced by the roots of hyoscyamus niger on the inhabitants of a monastery, who had eaten them for supper by mistake. Soon after retiring many of the monks were seized with vertigo, dryness and heat of the fauces, contortions of the trunk, and disorder of the limbs. At matins one imagined that he had to read the service for the dying; another fancied he was cracking nuts, and pretended to throw the empty shells away. Among those who reached the chapel some could not read, others read what was not in the book, and to others the letters appeared to be running about the page. Such maniacal manifestations are not of ordinary occurrence from an overdose of hyoscyamus. There are more commonly fulness and heat of the head, flushing of the face, injection of the eyes, dilated pupils, clouded vision, sometimes entire blindness, vertigo, delirium, or stupor, convulsions, hallucinations, and great arterial prostration,

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petechiæ, and other alarming symptoms which sometimes end in death, which termination is comparatively rare. STILLE remarks that "there is little or no inclination to sound sleep, but a sort of somnolence with incoherent mutterings, like that which is so common in typhus fever." Sometimes the sense of hearing is lost. Aphonia is also common. General sensibility is frequently much impaired, notwithstanding severe neuralgic pains are often experienced. STILLE mentions that the skin is apt to be bathed in perspiration which is sometimes cold, when a large dose of the drug has been taken; but smaller quantities, exhibited for several days in succession, more frequently render the skin dry and itching, or produce a papular eruption upon the surface. Sometimes paralysis affects the tongue, and spasms the pharynx.

Dr. CRAIK, of Montreal, describes the eruption in a case observed by him, as "a bright scarlet redness of the whole surface, exactly resembling that of scarlatina."

Different extracts of hyoscyamus frequently differ materially in strength, some being perfectly inert, as was refered to by ORFILA. Sometimes very small doses produce symptoms of poisoning. Dr. KEATING relates a case, in which three grains produced such symptoms. Dr. RUSCHENBERGER mentions another, in which four grains occassioned them. SCHROFF'S experiments with *hyosciamia*, (as quoted by Dr. STILLE) show that it produces dryness of the mouth and throat, lowers the pulse, dilates the pupils, and induces sleep. He states that in a dose of a five-thousandth part of a gramme, (about gr. $\frac{1}{333}$) it reduced the pulse from 79 to 18; and he gives as the average medicinal dose, one-sixtieth to one-twentieth of a grain. Dr. STILLE remarks, that "this sketch of the effects produced by henbane and its alkaloid present a striking contrast to the symptoms which arise from opium and morphia." The latter seeming, as he says, to exert their primary and principle action in regulating, and then oppressing or extinguishing the functions of the brain, and in rendering torpid the whole muscular system, including that of the intestines, while the former stimulate the mental faculties and at the same time derange them, affect the muscles of animal life with spasms, and promote instead of contracting the alvine evacuations. Judging, then, from its influence upon the healthy subject, (says Dr. S.) it is not easy to discern upon what grounds hyoscyamus should be classed with opium as a nar-

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cotic; he observes, that the actions of the two substances seem rather opposite than parallel. Some authors and experimenters have declined classing them together, viz.: ALBERT, BARBIER, FOUQUIER, and RATIER.

Remedial Employment.—Hyoscyamus is not a medicine of modern invention. The ancients used it for a variety of diseases, and a multiplicity of symptoms. They made use of it internally in diseases of the respiratory organs to subdue irritation and cough, also for the purpose of arresting hemorrhages, especially in menorrhagia; also in the treatment of epilepsy and dysentery. They used it extensively as a topical application to relieve pain in inflammations, in earache, toothache, gout, etc. Dr. PARR remarks that "the effects of henbane are similar to those of opium, when taken in large quantities; and like opium if administered with skill, it is a valuable sedative, moderating excess of irritability. With the advantages of opium, it is said to keep the bowels lax, especially if exhibited in large doses. It has been given in the form of extract as far as twenty-four grains; but the dose has been gradually increased from one or two grains; it seldom produces any anodyne effect," he says, "till it has amounted to eight or ten grains." Dr. CULLEN gave it to the extent of thirty grains a day. Dr. STORK claimed for this agent, the power to relieve palpitations of the heart, a tendency to melancholy, coughs, with other spasmodic disorders and convulsions, after other means had failed. GREEDING tried it in forty cases of melancholia, mania, and epilepsy without advantage. In cancers and scrofula it has been tried with various degrees of success. In chordees, which have resisted the use of opium, BELL used hyoscyamus with success, giving the the extract from one to three grains, sometimes a larger dose, three times a day.

Dr. PARR used the seeds of hyoscyamus in different cases of hysteria, and other convulusive diseases of the stomach. He found it, either alone or mixed with aromatics, a valuable sedative, without the deleterious or the constipating effects of opium. He began with grain doses, and seldom found it necessary to increase it beyond three or four.

In hypochondriasis, FRANK regards it as a valuable remedy, and Dr. SIGMOND thinks that in this disease it is particularly adapted, not only to procure sleep, but to soothe the disordered spirits with

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more quickness and certainty than anything else. WHYTE recommends it as a substitute for opium, although inferior, and directs from a grain and a half to three or four grains of the extract, night and morning, for the purpose of quieting nervous and hysteric symptoms, when opium confines the bowels. One grain of extract of henbane, and the same quantity of oxide of zinc, was a favorite remedy of MEGLIN, in the treatment of facial neuralgia. The dose was daily increased, until the sight became affected, or it disagreed with the stomach. A poultice of the fresh leaves of this plant is useful in quietiug neuralgic as well as other pains, but is no better for that purpose than stramonium leaves.

Dr. LITTLE thinks that all severe local pains of the paroxysmal sort are much more amenable to opium given internally, conjointly with analogous application to the affected part; but where an anodyne must be taken habitually, and there is any peculiar morbid susceptibility to the effects of opium, hyoscyamus may be advantageously substituted. Dr. CHRITISON states that it allays pain, soothes excitability, and induces soft and refreshing sleep. The anodyne properties of this drug may be usefully employed for correcting the tendency to gripe, which belonged to the resinous and some other purgatives. For occasional cathartics, the association of the principal medicine with laudanum may be preferable in some few cases, but hyoscyamus enters more appropriately into the composition of those pills and other forms of laxative medicines, which are intended for habitual use. The Germans employ henbane in the diseases of their children, almost to the exclusion of opium. Dr. KING speaks favorably of its use in cases where constipation must be avoided; also in neuralgic and spasmodic affections, asthma, gout, rheumatism, chronic cough, irritations of the urinary organs, and inflammatory cases attended with nervous excitability. He favors its combination with active cathartics, as scammony, colocynth, aloes, podophyllin, etc., for preventing tormina without impairing their energy. He remarks that its principal employment is to cause sleep, or remove irregular nervous action. There is more or less irregular action in most diseases, hence this agent must have a wide range in its application.

Poisoning by hyoscyamus requires about the same treatment as recommended for poisoning by opium. Emetics, the stomach pump, warmth to the extremities, cold to the head, and if stupor

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supervenes, internal and external stimulants may be directed. When the poison has all been evacuated, acid drinks are recommended to be given, and opium to quiet the nervous agitation which remains.

Dr. STILLE closes his admirable paper upon hyoscyamus with the following remarks:—

"If, now, it were required to express in a summary manner the therapeutic value of hyoscyamus, as deduced from the considerations which have been presented, the statement need be very brief. In every case in which opium and hyoscyamus are equally applicable, the former is infinitely to be preferred; where opium under no form and in no combination can be tolerated, its anodyne effects may be imperfectly produced by hyoscyamus; and as a corrective to the irritant properties of several cathartics, when it is necessary to administer them repeatedly, hyoscyamus is preferable to opium, as having no tendency to confine the bowels, This is, indeed, a brief catalogue of virtues compared with what have been ascribed to hyoscyamus, but a close scrutiny of the evidence in it will, we believe, admit no more."

Administration and Dose.—Hyoscyamus is administered in substance, fluid and solid extracts, and tinctures. The powdered leaves and seeds, either may be given in doses of five or ten grains. Of the officinal extract, the minimum dose is about two grains, and of the tincture one or two fluidrachms. The fluid extract may be given in doses from fifteen to twenty-five drops. Hyoscyamin may be given in doses varying from one-third of a grain to a grain. When doses of henbane are to be frequently administered, a small dose should be given at short intervals, and repeated until an impression is made. Different extracts of this drug may make it necessary to vary the dose, accordingly, as it may possess more or less activity. The same remark might apply to other remedial agents. ALSTON considered the dose of henbane uncertain, and Dr. STILLE considers it more uncertain than that of any other narcotic. The strength of the preparation employed, and the susceptibility of the patient to its effects, may soon be ascertained, by beginning with a small dose and increasing it gradually until the object is obtained for which it was administered, or its specific effects upon the system contravene its further employment.

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Notes of Practice.

BY A. F. PATTEE, M. D.

Fluid Ext. Belladonna.—In several severe cases of *colica pictonum*, I have used belladonna and croton oil, five drops of belladonna once in four hours, or until the patient is under the influence of it, and one drop of croton oil once in three hours or until free catharsis is produced. The abdominal pain is usually relieved in from three to four hours, and the disease generally succumbs in from one to five days, and then the patient is ready to go out, as the treatment does not reduce much.

Hematuria.—In a very severe case of hematuria accompanied with *ardor urinæ*, I gave fluid extract Alnus rubra, one half dram, every four hours. It stopped the hemorrhage after the fourth dose, and the medicine was discontinued after the fourth day, the patient then passing his urine free and easy. I have used it in a number of different diseases, and think it a valuable alterative astringent.

Strangury.—The following has been of much service in strangury occurring in old age:

℞ Fl. Ext. Galium aperine.....
" Senecio aureus, each ..... ℥j.

Dose, one-half to one dram, in sugared water, four times a day.

Hydrastis and Leptandra.—For some time past, I have used the fluid extracts of hydrastis and leptandra in chronic diseases of the stomach and bowels, and I find them to be valuable medicines in such cases. They regulate the liver into healthy action, and exert an alterative tonic effect upon the mucous tissues. Sometimes I add fluid extract of belladonna. The following is a valuable combination, and will serve in a large number of such diseases:

℞ Fl. Ext. Hydrastis..... ℥j.
" Leptandra..... ʒvj.
" Belladonna..... ʒj.

M. Dose, from one-half to one dram, three to four times a day.

Chronic Hepatitis.—In all diseases of the liver, the stomach and bowels require great attention; unless they are placed in a healthy condition, and the diet properly regulated, we cannot hope to ac-

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complish much good. Mercurials I consider worse than useless, and many times I find the effect of the blue pill more difficult to get rid of than the real disease. In cases of chronic hepatitis, with indigestion and a yellowish fur upon the tongue, accompanied with more or less nausea and vomiting, a yellowish hue of the skin, and constipation, I usually give some of the vegetable alteratives and alterative-cathartics, sometimes combined with a stimulant tonic and ten to twenty grains of phosphate of soda, three times a day. The following will be found to be a good liver invigorator:

℞ Fl. Ext. Apocynum Andros. ..... ℥ ss.
" Hydrastis Can. ..... ℥ ij.
Tinct. Zingiber ..... ℥ j.

M. Dose, one-half to one dram, three or four times a day, with the following pill at bed time:

℞ Podophyllin ..... gr. vi.
Solid Ext. Sanguinaria ..... " x.
" Simaruba ..... " xx.
Pulvis Rhei ..... q. s.

M. Divide into twenty pills. Dose, one at bed time. In case there is considerable pain over the region of the liver, I apply a belladonna plaster.

Cynanche Pasotidea.—Mumps usually begin with pain, heat and swelling in the salivary glands, and more or less stiffness in the joints of the jaws. It may attack the testicles first, or even the brain. In two cases where it first made its appearance on the brain, with alarming symptoms, delirium, subsultus, coma, sordes on the teeth and lips, tongue red and dry, I gave fluid extract of gelseminum and chlorate of potassium. They both recovered. In cases where it attacked the testicles, I used the gelseminum internally, and belladonna and glycerine, equal parts, rubbed on the testicles three times daily.

Epilepsy.—In a case of some ten years duration, which had been under all sorts of treatment, the attacks coming on once or twice a week and lasting from three to five hours, I gave hydrocyanate of iron and belladonna,—five drops fluid extract of belladonna, three times a day, before meals, and one grain of hydrocyanate of iron, increasing the iron until the patient took ten grains a day. She had no fits after the first month of treatment,

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but continued the medicine for one year, occasionally intermitting it for a week. It is now two years since she has had a fit.

Treatment of Earache.—In numerous cases of earache, I have used the vapor of chloroform with perfect success. I take a common tobacco-pipe, place a wad of cotton in the bowl, then drop eight or ten drops of chloroform upon it, and cover with another wad of cotton; place the stem to the affected ear, then blow into the bowl; the chloroform vapor is carried into the ear, and the pain almost instantly ceases.

Ascarides.—The following treatment has always destroyed them: Fluid Ext. Asclepias incarnata, five to fifteen drops once in four hours, using the following injection:

℞ Fl. Ext. Simaruba..... ℥ss.
Aqua fervens..... ℥j.

M. Use this three times a day for a day or two, or until no worms appear.

On the Treatment of Pleurisy.

By Prof. Trousseau.

M. Trousseau rarely employs blood-letting in the treatment of pleurisy; he scarcely ever cups, even at the commencement of the disease. As an antiphlogistic, he prefers calomel in minute doses, administered according to the method of Low, aconite and digitalis. A favorite mode of treatment in these circumstances is the following: calomel, a grain and a half; powdered sugar, a dram and a half. To be carefully mixed and divided into twenty powders, of which one is to be taken every two hours. Tincture of aconite and digitalis, of each 15 drops; ordinary julep, 5 ounces. A tablespoonful to be taken every two hours. The pleuritic pain may be relieved by the application of a compress soaked in chloroform, or in a watery solution of opium. The part having been rubbed for five minutes, with the later preparation, a moist rag is to be placed over it and covered with a piece of oiled silk.

When pleurisy is complicated with effusion, M. Trousseau has never recourse, in order to favor the absorption of the serous fluid, to blisters, so generally used in this state. Blisters, and especially large blisters, present several disadvantages; they cause great suffering, and are often the cause of ecthyma, abscesses, boils, carbuncles, erysipelas and other severe accidents. Not long ago, there was in the Hôtel Dieu a patient who had been treated outside on account of pleurisy, and who, as the result of a blister, presented two abscesses of the thoracic parietes, so situated that they at first appeared to communicate with

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the interior of the chest, or to be simtomatic of caries of a rib. They had, however, been produced by the application of a blister, and on being dressed in the usual way soon healed.

M. Trousseau's treatment of effusion varies according to its importance. If the amount is inconsiderable, he confines himself to the administration of digitalis in doses of ten or fifteen drops, of diuretic drinks, quiet, and a light diet. If the effusion is considerable and the pleurisy simple, he evacuates the fluid by means of thoracentesis. Mr. Trousseau does not allow himself, under these circumstances, to be guided by the degree of oppression. He has actually seen two women, affected with enormous pleuritic effusions, die suddenly, without having experienced the least dyspnœa. One of these patients was a nurse, at the twelfth day of pleurisy; she died while sleeping, and her countenanee expressed the most perfect calm. M. Trousseau is inclined to share the opinion of Aran, who recommended that the operation should be practiced as soon as the effusion had reached the fourth rib; in fact, in these circumstances he has never seen a bad result follow. However, he seldom operates until the fluid has reached the level of the clavicle.

The operation is very simple; the puncture is made in the fourth or fifth intercostal space. If there is no other means at hand to prevent the introduction of air into the pleura, the wide end of the canula is plunged into the fluid which is flowing out, and this latter is itself an obstacle to the entrance of air. Thus practiced, thoracentesis has always excellent results when the effusion is on the left side, that is to say, when the pleurisy is simple; for Aran found, by clinical observations, that, ninety-five times in a hundred, pleurisy of the right side is secondary, being connected with tubercular disease of the lungs, while pleurisy of the left side is generally primary.

In the case of tubercular pleurisy with effusion, thoracentesis may be resorted to as a palliative, although necessarily with little chance of success. Topical applications are, however, often useful, particularly the repeated application of iodurated preparations, and especially of the alcobolic tincture of iodine.—*Edinburgh Medical Journal*, from *Journal de Médecine et de Chirurgie pratiques; Boston Med. and Surg. Journal.*

Constipation and its Treatment.

During a discussion before the Chicago Medical Society, the following remarks were made in reference to this subject:

Regarding want of action in the muscular coat of the intestine as the essential cause of constipation, Dr. G. Paoli thought the proper remedies were such as would increase the contractility of that structure. His favorite remedy is strychnia dissolved in water, one grain to the ounce, of which he gives from five to ten drops twice a day. Dr. Hatch had met with a species of constipation, frequently in children and sometimes in adults, accompanied by profuse

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vomiting of a thin, acrid and sour fluid, and often by soreness of the mouth. He had pretty uniformly succeeded in relieving this state by dissolving sixteen grains of argenti nitras and twenty-four grains of iodide of potassium in four ounces of water, giving a teaspoonful after each meal until the vomiting ceased. Then he substitutes a cold infusion of hydrastis canadensis, until the regularity of the bowels is established. The same treatment he had found very effectual in relieving nursing sore mouth. Dr. Waite thinks that in nineteen out of twenty cases constipation arises from erroneous habits. He therefore relies in the treatment mostly upon the correction of errors in habits, diet and quality of food, advises patients to exercise actively and to live largely upon vegetables and coarse bread, especially that made of unbolted flour. If medicine becomes absolutely necessary, he uses a pill composed of blue mass, two grains, ipecac, two grains, aloes, one grain, to be given every night until a healthy action is established. Dr. Peterson considered constipation to be not a disease, but only a symptom. Hence we must always enquire after the cause, and apply the remedies to its removal. Dr. Hinkley is in the habit of giving black mustard-seed, in doses of a teaspoonful daily, with very satisfactory results. Dr. Davis regarded constipation as arising either from deficient contractility of the intestinal muscular coat, or from deficient secretory action in the mucous membrane, or from deficient secretion of the liver. The first may be produced by all causes that debilitate the nervous and muscular structures, such as sedentary habits, confined and impure air, insufficient supply of air from confinement of the chest by bad modes of dress, refusal to attend to the calls for defæcation when they exist, etc. The second may arise from any causes that are capable of diminishing secretory action, and often exists in connection with the first. The third may arise from any pathological state which prevents the bile from passing into the duodenum, although absence of bile not always produces constipation. In the treatment, attention should be given to a removal of all such causes as may have contributed to produce it. The patient should practice going to stool at a given time each day; all errors in dress, diet and exercise should be corrected. Among the best remedies to restore a healthy peristaltic action is the following: Extract of hyoscyamus, sulphate of iron, of each thirty grains; powdered aloes, extract of nux vomica, of each ten grains; mix and divide into thirty pills, one of which may be given before each meal. In the constipation of chlorotic females and anæmic persons generally, Dr. Davis advises one dram of citrate of iron with one grain of strychnine, to be made into thirty pills, used as before. When the constipation arises principally from want of proper secretory action, he has used with much advantage, before each meal, small doses of a solution of sulphate of magnesia, acidulated with aromatic sulphuric acid.—*Chicago Med. Examiner; Cincinnati Lancet and Observer.*

"Suicide in France.—A curious calculation respecting suicides in France has just been published. It shows that the number of suicides committed in France since the begining of the present century is not less than 300,000."

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[From the American Medical Times.]

Remarks upon Diphtheria.

By Ezra M. Hunt, M. D., of New Jersey.

We had occasion in a former number of the *Medical Times* to offer some thoughts on the phenomena and treatment of Diphtheria, illustrated by a short tabular history of a few prominent cases. It has been our lot still further to meet, and therefore our duty still more carefully to investigate, the character of the disease; and I propose, therefore, to add another brief article to what has already been said and written upon the subject.

The ardor generally manifested in the study and observation of this disease is a compliment to the energy and fidelity of the medical profession. The old Aristotelian philosophy formed theories, and then endeavored to make facts correspond thereto, and with a great deal of tenacity some medical authors have clung to the old organum. But the "Novum Organum" of Bacon, as applied to medicine, is inductive, in the sense that it forms theories only from facts submitted to the test of actual observation, and confirmed by treatment. This is just what we need, in order to advance medical science and to insure correct practice, and just what seems to be now the better tendency of medical pursuits. It is the method of investigation which seems to have prevailed in the study of this extraordinary affection. Coming to our country, so far as idiopathic type is concerned, as an entirely new disease, there was little time for vague theorizing, and medical men have been thoroughly intent upon its accurate examination, in its clinical aspect. Considering the difficultis which always must surround a rapid malign disorder, depending on some prevalent yet unknown cause, the results have been to a high degree satisfactory. Statistics show that even where it still prevails the average mortality has much diminished, and we are able to approximate to as definite views of treatment as lighten our pathway in dealing with most epidemic diseases. Although we possess few elaborate treatises, yet in medical societies, lectures, and monographs, the facts of the ailment have been fully discussed, and there has been with fuller experience a tendency to coincidence and correspondence of views as to its management, and a growing confidence in our ability to grapple successfully with it, where time is allowed for treatment. Without desiring permanently to multiply new nosological distinctions, for the sake of precision, we will speak of diphtheria as of three degrees of severity; and to avoid the mingling of Greek and Latin terms, in good plain English let us name them—mild, grave, and malignant.

The disease in the mild form has prevailed very extensively, if we may rely upon the evidence of a large and respectable number of the profession. An unusually large number of cases of throat effection have occurred in which, although there was no decided diphtheritic deposit about the faucus, there was still a general diffused redness spreading over the whole region,

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showing an epidemic character, accompanied with unusual debility, and requiring a tonic course. It certainly has seemed different from tonsillitis, from scarlatina simplex, from common sore throat arising from disorded stomach —or from bronchial affection—in fact, different from any usual anginose difficulty, as distinct as is mild influenza from common catarrh, and as are many other diseases from those with which they have points of resemblance. We have been careful not to call these diphtheria, and were at first disposed to regard them as merely incidental, and in some cases imaginary ailments; but so decided is the testimony of many excellent practitioners, as well as our own smaller experience, that we are constrained to regard this as a diphtheritic sore throat, or mild diphtheria. The view which classifies these cases as dependent upon a dilute and partial influence of the diphtheritic poison, is, of course, open to criticism, as it is always difficult to substantiate the character of a disease from its most attenuated forms. Mild cases of measles and scarlatina, mild variola and severe varicella, are sometimes difficult to diagnose; and it is true of the mild forms of many affections that we establish their identity with their more self-declarative species, by concomitant circumstances rather than by the decided symptoms of the particular case.

Sometimes even disease is so malignant as to be obscure in diagnosis. We remember seeing with another practitioner cases of scarlet fever, where five in one family died in succession, in but one of whom was there any eruption or decided throat trouble; yet others exposed by attendance upon them had plainly developed scarlet fever.

With such, or such like analogies, and with the facts before us as to the peculiar character and synchronous prevalence of this affection with decided diphtheria, its epidemic character, its occurrence in the same families, and at the same time with the full-fledged disease in other members, and the success of the same general line of treatment, we seem justified in the view of it until some other is rendered more probable. Under the use of chlorate of potash, a free diet, a daily dose of quinine, and perhaps chalybeates, the symptoms are not difficult to overcome.

The next division of diphtheria noticed is the "grave;" that which is typified in the usual decided forms of the disease. In its onset it is generally marked by some febrile excitement, not unfrequently accompanied with nausea or a chill, or alternations of chilly and over-heated sensations, and an uneasy feeling or soreness is complained of about the region of the throat. Examination within twenty-four or thirty-six hours after the first symptom of feeling unwell, shows the membrane deposited generally on one or both tonsils. This often spreads from various points, and uniting together they form a skin or covering, more or less extensive. The exudation itself is almost pathognomonic of the disease, while the quick spiteful thrill of the pulse, as well as its frequency, points to a serious constitutional malady. As our design is not a full description of the disease, but only its outlines, it is not necessary now to trace all the frequent or occasional attendant circumstances. Of these, swelling of the maxillary, parotid, and cervical glands generally are among the

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most common local complications. The severity of the affection is sometimes out of all proportion to the amount of exudation, and day after day, in some cases, we see the patient succumbing to some secret morbid agency, even where the local trouble is not in its extent or mechanical embarrassment serious.

This seconed variety of diphtheria is the one in which treatment is most fairly to be tested. We have opportunity to contend with a disease sufficiently formidable, yet not invulnerable, and our general view of successful remedies must turn upon such cases. Some of them, even when severe, delightfully yield to the steady artillery of decided tonic treatment, while in others, the nervous system, and the stomach and digestive organs especially, seem so weakened, both in powers of digestion and assimilation, as to embarrass our communication with the system in our attempt to afford it tone and strength to outbattle the disease.

Let us illustrate what seems to us the general indication of treatment in a decided and severe case of diphtheria, where the stomach and digestive organs are in fair working order.

The patient is a mother who had watched at the death-bed of a child, who had just died of the disease in a malignant form. Forty-eight hours after, during the night, she awoke with an unpleasant sensation about the throat, and some fever. In the morning when the physician was called decided exudation was found upon one tonsil, which for two or three days continued spreading. The pulse was 110, nervous, and slightly feeble; bowels regular; stomach not much disturbed, save appetite impaired. The following is the general line of treatment:—Chlorate of potash ʒj; aquæ puræ ℥iij. Let the water be boiled, if hard, so as to secure the entire solubility of the chlorate. Dose, a teaspoonful every two hours, and to every other dose add fifteen drops of murias tinctura ferri. The same medicine continued for several days at intervals of two, three or four hours, according to symptoms.

Sulphas quinæ from three to four grains morning and night, varied in quantity or frequency according to signs of debility. In the case before us there was little variation, except occasionally a dose at midnight. Good digestible food three times per day—such as in hospital practice is called *extra*. Wine or brandy in tablespoonful doses once between meals, or at midnight or towards morning if much debility. Drink of pure milk if preferred. At night, if restless, or especially if the night before was a sleepless one, *twenty* drops of laudanum. The pulse for several days varied from 90 to 110, reaching at times 120, but under this treatment subsided to its usual frequency in about ten days.

In the internal local treatment the probang is to be abhorred. If, as in this case, you see the exudation early enough circumscribe it with a strong solution of nitras argenti, applied by means of a large hair pencil, such as you may get at a depot of artists' materials or of some druggists. We doubt whether this caustic is of any value operating only upon or through the exuded membrane. The best gargle we are acquainted with is one made of salt, vinegar,

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molasses, Cayenne pepper, and water, in proportion about as follows:—Chlorid. sodii ʒj.; aceti acidi diluti ʒj.; treacle ʒij.; pulv. capsici ℈j.; aquæ puræ, q. s. To be used frequently, but without straining the throat by prolonged use. A stimulating gargle like this we have found of great value in the anginose variety of scarlatina, and it is equally serviceable here, as there is no tendency to dynamic inflammatory action, but even the inflammatory tendency is typhoid. Where there is marked fœtor which the internal medicines and this do not obviate, as rarely occurs, Labarraque's solution, chlorate of potash, or brewer's yeast, may be freely used. A saturated solution of tannin or alum is a favorite gargle with some. We deem these of little value except during the early formative stage of the membrane. Here, by its constriction, it may act mechanically to corrugate the throat and break up the attachment of the membrane, or as some think specifically as a preventive of exudation.

Externally counter-irritation is desirable, and here in the country a slice of well salted fat pork produces about as pleasantly and rapidly as is desirable a papular eruption all sufficient. Over enlarged glands we have, in common with others, used Lugol's solution, but in bad cases it scarcely acts rapidly enough to produce its specific effect. Such are the general and local plans of treatment which we believe to furnish the best hope of recovery. I formerly used the mineral acids quite freely, but in some cases they seemed to me to impair the tone and power of the digestive organs, and to prolong a subsequent anæmic condition. I have seldom found the murias tinctura ferri administered as above, and still more diluted if need be, to disagree. The well estabished value of the chlorate in stomatitis, ptyalism, and other forms of constitutional affections of an adynamic character with local manifestations, and the benefit of the muriate in erysipelas, scarlet fever, and such low grade inflammations, would lead us to anticipate some value from them in this kindred disease, and they do not disappoint us in the only true test of treatment, Chemistry cannot explain it, for whether the chlorine acts as a disinfectant, or the chlorate of potash as a tonic (Tully and Percy, good authorties deny it,) we cannot determine, or whether the muriate is decomposed, and at once adds itself as an important constituent to the blood, we are not sure, but they *do* aid in the control or abatement of the disease. Nor is the opiate to be undervalued. There is astonishingly little tendency in this disease to death by *coma*, except where the swelling of the glands retards circulation, or where mechanical closure about the laryngeal region interferes with respiration. The ailment in its start has a prominent nervous element, and the *laudanum*, acting first as a stimulent as in hæmorrhage, then as a sedetive and soothing an excited circulation, procuring sleep in the midst of restlessness, used judiciously an in early stages, is of no small scrvice.

Those cases in which there is no very extensive depoisit in the fauces, and yet in which the whole system seems prostrated, and the powers of digestion and assimilation greatly impaired, though not rapidly fatal, yet not unfrequently after three or four weeks wear out the life of the little sufferer, and

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for successful treatment require of the physician strict attention to all dietetic rules and laws of digestion as well as to the administration of medicines strictly so called. Milk, eggs, and the most easily assimilated food must be provided, care being taken to give the stomach proper intervals of rest; stimulants will need oftener to be used instead of food nutrients; vegetable bitters, such as wormwood, Huxham's tincture, etc., may avail where quinine will seem to disagree. Milder chalybeates, such as Blancard's pills, etc., may be required, and withal the best sanitary and hygienic measures combined. Bathing the surface with warm brandy and milk, cod-liver oil, or some other nutrient material, may enable the skin to help in the work of regeneration, and thus all reasonable means must be used to wear out the disease before it does the patient.

Of malignant diphtheria the following case is a type:—In a family in which a child had been several days sick of the second form, a little girl of eight summers complained one Sabbath afternoon of a little soreness of the throat. A casual examiniation in passing exhibited some diffused redness of the fauces, without any exudation whatever, but as the pulse was frequent, and nervous for fear of the disease, chlorate of potash was prescribed. On Monday morning the glands about the neck were enlarged, the tonsils swollen, and slight points and strings of exudation sprinkled all over one tonsil. Constitutional symptoms were intense, indicating the active use of remedies. Tuesday morning the throat was enormously swollen, deglutition difficult, pulse not rallied, the throat and palatine arch covered with exudation, extremities purple and cold; death master. The child lived until Thursday morning, all the time sensible, at intervals playing with toys, but pulseless several hours before its death. I know no treatment for such a case except to call to our aid all the dynamics which our art can furnish; and though I have great faith in medical progress I expect not to see such an ailment manageable until malignant scarlatina, concrete variola, typhoid pneumonia, and the plague, become subject to the powers that be.

As to the importance of prophylactic means, and there availability, our confidence in them is continually increased. The first cases in a family are generally the most malignant; and where chloride of lime, tar simmered over a fire, and care used about the residence, and chlorate of potash, good food, abundance of salt, and placidity of mind are advised, the after cases seem quite manageable. It has never happened to me to lose any case occurring in a family after such a course had been fully initiated, and I believe it our duty in every case to enforce such a course.

In connection with this disease, so far as hypothesis is concerned, it is proper to inquire whether the morbid poison of the disease, whatever it may be, does not operate by destroying or enfeebling the cohesive or solvent properties of the blood by depriving it of its salts, or in some way rendering them inert. "The use of the saline matter," says Carpenter, "is evidently in part to prevent decomposition in the circulating blood." It almost seems as if something the same process of separation takes place as when blood is drawn

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from the body, and as here certain salts retard the separation, so may not these remedies used act upon the circulating fluid of the system? Has any minute chemical examination of the blood been made in connection with diphtheria in order to determine whether any change has taken place in the saline constituent? Does the swelling of the glands about the neck depend upon the absorption of the membrane found about the fauces? Some have advocated active interference with it on this ground, but it seems to us that, as in bilious and other fevers, such enlargement is not a result of absorption from the locality, but only an indication as to the fact of the lymphatic system being affected by the virulence of the poison.

As to the sequelæ of diphtheria, they furninsh material for much remark, but as we have met with none of them save anæmia, not very persistent, and slight local paralysis about the voice organs, we shall leave these to be elaborated by those of larger experience in this direction.

Digitalis in Delirium Tremens.

SEVERAL cases have lately been reported in the medical journals of the successful treatment of delirium tremens by large doses of digitalis. We copy the following from the *Medical Times and Gazette* as proving, that even when the ordinary effects of the medicine on the system show themselves, they do not go to an extent to be dangerous. Dr. Williams, of Liverpool, observes:

At noon of Wednesday, August 28, I was requested to see a private patient, whom I have cured of delirium tremens on two previous occasions by a single subcutaneous injection of two-thirds of a grain of sulphate of morphia, dissolved in twenty minims of water. Since the last attack he had been perfectly sober, until August 13, when he began to drink, but continued to eat as usual until the 20th, from which time he drank brandy, and continued doing so up to the day I saw him. He became delirious on the 26th, and slept none during that or the following night, nor had he eaten food since the 20th.

When I saw him he was perfectly furious, almost naked, and struggling to get out of the house; with difficulty I ascertained that the pulse was 108. 2 P. M.—Administered tinct. digitalis, ℥ ss., and persuaded him into bed. In twenty minutes the pulse had fallen to 96, full and soft; tongue loaded. He was still very much excited, and I thought the lowering of the pulse was due to position and soothing conversation. To have another ℥ ss. tinct. digit. at four o'clock. 5 P. M.—An hour has elapsed since he took the second dose of the tincture; he has been extremely wild and restless, excepting once, when he seemed to fall into a quiet doze for a few minutes, but awoke as mad as ever. Pulse 96, full, soft, and regular; skin cool, but as he is almost naked, and cannot be induced to lie in bed covered, that is easily accounted for. To have another ℥ ss. tinct. digit. at seven o'clock. At 10.30 P. M. had become more manageable, and has been quieter since six o'clock; pulse 96, but wiry,

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with uncertainty about an occasional beat; has slight nausea, will take no food, but wants beer continually; to have a little brandy and lemonade during the night, and as much beef-tea as he can be induced to take.

29th.—10.30 A. M.—Has had a bad night, has not slept more than an hour and a half since he took the first dose, but has been vomiting and purging very much all night, with violent palpitation of the heart between six and ten o'clock this morning. He attempted to take beef-tea, also brandy and lemonade, but vomited everything; he is, however, quite quiet, talks rationally, and complains much of the palpitation. Pulse 86, full, soft and steady; skin comfortably warm and moist, tongue cleaner; to take ʒss. every three hours, of the following mixture, and as much food as possible:—℞ Bismuth subcarb. ℈ij., sol. morph. ʒj.. æther clor. ʒjss., mucilage Arab. ℥ss., aquæ ad ℥vj., M. 10 P. M.—Has spent the day at Eastham, where he took six and a half glasses of brandy, but no food or medicine. Has had no vomiting or purging since morning; kidneys have acted throughout as usual. He is now quite quiet, but provokingly obstinate, and craving more brandy; pulse 96. All stimulants forbidden; to take his mixture and as much milk, beef-tea, etc., as possible during the night.

30th.—He is so much better of his delirium that his friends allowed him to go to Seaforth alone, as he complained of being ill, and thought a little change would enable him to return to business quicker. His wife says he has had a good night, and she thinks he slept a good deal, has had no stimulants, but drank a large quantity of milk, and from this time steadily recovered.—*Pacific Medical and Surgical Journal.*

Anarcotine.

In the *Indian Annals of Medicine* for September 1861, there is an elaborate and able report addressed by Dr. A. Garden, of Ghazeepore, to the Deputy Inspector General of Hospitals, on the therapeutic uses of anarcotine, tabulating in various forms the results of its employment in nearly 700 cases of intermittent fevers. Turning to our systems and dispensatories, we find it briefly noticed that this substance has been employed as an antiperiodic by Dr. Roots and Dr. O'Shaughnessy. This brief notice has, it appears, been wholly overlooked or neglected in this country; and yet, as we shall show, anarcotine possesses therapeutic properties well worthy of attention.

It is generally known, that one of the crystalline constituents of opium received from chemists the name of "narcontine," under an erroneous impression that it was the narcotic principle of that drug. So far from this being the case, it has not the slightest claim to that title; and, consequently, it is very properly proposed to prefix the privative letter *a* to the name, and henceforth designate it as *anarcotine.*

Referring to Sir W. O'Shaughnesy's original statement, we find him saying:—"I have now employed the narcotine in sixteen cases of remittent fever,

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and such is my opinion of the efficacy of the remedy, that in instances of fever, intermittent and remittent, in ordinary healthy subjects, and in whom there is no complication of severe organic diseases, I gave it with the full expectation of arresting the next periodic return of the fever. I have seen the result follow in ten of the cases of the fever alluded to. I consider narcotine a more powerful antiperiodic than quinine. The remedy does not act silently. I have observed a degree of general heat follow its use in the first instance, and subsequently perspiration, so that it appears to excite in the system a salutary and powerful counteraction, as to stop the morbid concentration that issues in fever. I have not observed that narcotine to lead to organic disturbance in the cases in which I have used it. In short, even from my scanty experience, I consider the remedy an invaluable one."

To his own testimony Sir William added the experience of several practitioners, who speak in the highest terms of its value as an antiperiodic, especially applicable—1st, in quotidian fevers; 2d, in cases complicated with visceral enlargements of the liver, spleen, etc.—or local inflammations, as of the bowels—or cerebral congestion; 3d, in cases of intermittents supervening upon surgical operations; 4th, after failure of quinine, or both quinine and arsenic.

Anarcotine is a white, inodorous substance, crystallizing in prisms, insipid to the taste, insoluble in cold and sparingly soluble in boiling water, more soluble in alcohol and either, insoluble in alkaline solutions. It forms salts with the mineral acids which have a very bitter tase, similar to that of quinine. The sulphate and hydrochlorate are the most convenient for internal use. Anarcotine is obtained from the residue of opium left after separation of the morphia. Hence it ought to be a very economical medicine.

Dr. Garden's investigations, as recorded in the report alluded to, were directed to the therapeutic value and peculiarities and the commercial advantages of the use of anarcotine, and the conclusions he establishes are as follows:—

We have in anarcotine a remedy which fails in only 3·6 per cent. of all cases treated by it alone; and, without regard to the previous duration of the disease, and taking both quotidian and tertian agues, arrests the fever on the whole average before the recurrence of a third paroxysm after the commencement of the remedy.

In small doses anarcotine acts as a tonic, increasing appetite and improving the tone of the system generally. For this purpose, from half a grain to a grain of the sulphate, combined with a slight excess of sulphuric acid, is a sufficient dose.

As an antiperiodic, a grain and a half to three grains or more, even to the extent of six grains, may be given at suitable intervals. Its most appreciable effect on the system is, that it increases the heart's action, raising the pulsations from ten to twenty beats per minute beyond the ordinary amount, and renders the pulse somewhat fuller.

In larger doses (five to fifteen grains) it produces increased heat of surface and diaphoresis, and sometimes disagreeable symptoms—nausea, giddiness, and

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vomiting. These, however, disappear on lessening the dose, in most cases. The author remarks, "In several cases I have obtained marked benefit by combining tincture of opium with the sulphate of anarcotine." "The only objection to the medicine is its tendency to produce constipation;" hence, before and during its administration, purges are necessary.

In reference to the relative economy of anarcotine and quinine, Dr. Garden's tables are full and conclusive. The average quantity of sulphate of anarcotine required to arrest intermittent fevers was found to be twenty grains for quotidians, and something less than forty grains for tertians; whilst about sixteen grains were demanded during convalescence from both kinds for the re-establishment of health. If it fails in a small percentage of cases, this is not more than is experienced with quinine, to which it is nearly if not quite equal in therapeutic value as an antiperiodic. As a matter of mere scientific curiosity, not of any present significance in therapeutics, we may add that organic chemistry separates anarcotine into four homologous bodies, which, by decomposition with caustic potash, yield homologous volatile bases:—

Normal anarcotine		—yielding	ammonia.
Methylic	"	"	methylamin.
Ethylic	"	"	ethylamin.
Propylic	"	"	propylamin.

—*Lancet; American Druggists' Circular and Chemical Gazette.*

Case of Hydrops Articuli.

By S. Barrett, M. D., Le Roy, N. Y.

U. A., aged 21, came into my Infirmary April 21, 1861, with the cavity of the right knee joint distended with fluid so as to separate the patella from the bones of the joint; the swelling extended considerably above and below the joint. The history of the case was, that several years since he met with a severe sprain of the joint, which was followed by great soreness and inflammation, which laid him up for several weeks; when the soreness was so far removed that he was enabled to move about with crutches, he began to discover slight fluctuation through the joint, and enlargement; as the soreness passed away, about two years since, the enlargement remained and gradually increased; at times he would be obliged to suspend all exercise. When he presented himself, fluctuation was very distinct through the joint; the capsule and ligaments were considerably thickened, which gave feeling and appearance, as though the bones were enlarged. His constitution and general health not being seriously impared, I decided to puncture the joint, draw off the fluid, and if too high degree of inflammation did not follow in a few days, inject with solution of iodine. I accordingly made valvular incision a little upon the inside of the patella, which was followed by a sudden gush of about four ounces of gelatinous fluid; the limb was placed in an elevated position, and kept at

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rest, with a bandage applied as firmly as the joint would bear. Three days after, with a hypodermic syringe, I punctured the joint upon the inside of the knee, and injected ℥ 3 of solution of iodine, of the following strength: Iodine ʒi; Iodide potass ʒi; Aqua pura ℥i. Considerable inflammation followed; the joint swelled pretty full; in a few hours became hot and painful; the limb was kept elevated; evaporating lotions were applied, so as to keep down inflammation, and a bandage applied as soon as it could be borne; in six weeks there was found to be some increase of fluid in the joint. The operation was repeated in the same manner as the first, injecting the iodine into the outside of the joint; this arrested the morbid secretions. He was discharged the first of July, the knee about the size of the other, free from any soreness or unnatural effusion; the joint has been sustained by a knee-cap, and gradually recovering strength; at this time it is as limber as the other, and he has resumed his labor upon a farm.—*Buffalo Medical and Surgical Journal.*

On Ptelea Trifoliata.

(An Inaugural Essay presented to the Philada. College of Pharmacy, 1862.)

By George M. Smyser.

Petelea Trifoliata, or, as it is sometimes called, *Swamp Dogwood, Wafer-ash or Hop-tree*, is a shrub from six to eight feet in height, with the leaves trifoliate and marked with pellucid dots. The flowers are polygamous, greenish white, nearly half an inch in diameter, of a disagreeable odor and disposed in terminal corymbose cymes. Fruit, a two-celled samara, nearly an inch in diameter, winged all around, nearly orbicular.

This shrub is "common to this country, growing more abundantly west of the Alleghanies, in shady waste hedges and edges of woods." It flowers in June. The bark of the root of this plant is used to some extent by the "Eclectic Physicians" of the west as a tonic in intermittent and remittent fevers. This plant having been suggested to me as a subject for a thesis, and not finding any account of its having been analyzed, I determined to make some experiments with it.

First, a cold infusion was prepared by percolating six drachms of the powdered leaves with water, until six ounces of liquid had passed. This was of a dark brown color, had a bitter aromatic taste and an odor strongly resembling that of hops. To a portion of this infusion a solution of bi-chloride of mercury was added which produced a dirty white precipitate, and with successive portions of the infusion, sulphuric and muriatic acids each produced a precipitate; the infusion was also coagulated by heat, showing the presence of vegetable albumen.

To a portion of the infusion a few drops of tincture of chloride of iron was added, which produced a black color. To different portions were added ni-

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trate of silver, sulphate of copper, and a solution of gelatin, all of which produced precipitates indicating the presence of tannic acid; the portion which was precipitated by gelatin was filtered, and with the filtered liquid tincture of chloride of iron produced a greenish black color, which disappeared when the liquid was heated, showing the presence of gallic acid.

Second. An infusion of the fruit was prepared similar to that from the leaves. This infusion had a very bitter taste, and upon treating it as in the former experiments the result was the same.

Third. Two and a half ounces of the powdered fruit was treated with ether to deprive it of fixed oil, dried and treated with alcohol. To the resulting tincture, acetate of lead was added, which threw down a large quantity of coloring matter and some resin, the liquid was filtered and treated by passing sulphuretted hydrogen through it to get rid of the excess of lead, and then again filtered and heated to drive off the excess of sulphuretted hydrogen. To the liquid, yet warm, water was added in drops until it began to produce a precipitate; it was then placed on a sand bath and evaporated to a syrupy consistence; when it had cooled, it was agitated with an equal bulk of chloroform, and when allowed to rest a few minutes it separated into two layers, the watery liquid being on the top; this was decanted, and on evaporation yielded a small quantity of an extract of a very bitter taste. I made repeated attempts to obtain crystals from this extract, but without success. The chloroformic solution when evaporated gave a soft resinous substance of a slightly acrid bitter taste.

Fourth. Three ounces of the powdered fruit was moistened with equal parts of alcohol and water, placed in a percolater and the menstruum of alcohol and water passed through it until it was exhausted. The resulting tincture was evaporated to an extract which was of a dark brown color and a bitter acrid taste. One drachm of this extract was washed with alcohol, which dissolved out a small quantity of a soft resin which was very acrid to the taste. The same part of the extract was washed with ether; this dissolved a portion of it, and on evaporation yielded a brittle resin which was odorless and almost tasteless. The part which remained after being washed with the alcohol and ether, was principally bitter extractive matter and which had none of the acrimony of the extract.—*American Journal of Pharmacy.*

Large Doses of Quinia in Typhoid Fever.—Dr. C. P. Harrington, of Ashland, Pa., writes us as follows, relative to his method of treating this fever by the administration of large doses of quinia: "The dose is from four to eight grains every hour during the remissions, which are always very distinct in the morning. We never have typhoid fever in our part of the country without remissions occurring every morning." Query.—May not the fevers in your region partake of a malarial origin? and may not your success in treating the disease be accounted for in that manner?—*Med. and Surg. Reporter.*

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On the Use of Seeds of the Cucurbita Pepo, or Pumpkin, in Tænia, with Reports of Cases.

By G. R. Patton, M. D., Cincinnati, O.

Thomas Weightman,—nativity, England,—æt. 25, residence 22 Park street. He first observed fragments of the *Bothriocephalus latus* in his evacuations in the spring of 1855, while serving in the British army of the Crimea. He had been much exposed at night in the trenches; had been poorly clad, and served with inferior rations—the meat often eaten raw, and even sometimes in a partly putrid state. From that time until his final treatment, joints of the worm had dropped from him, either involuntarily while at work, or in bed at night; while fragments varying from several inches to thirty-one feet were voided, from time to time, under the use of anthelmintic remedies—the longest period of their absence from his evacuations being seven weeks. The most strongly marked symptoms were nervous sensations in the epigastrium, with colic and nausea; appetite voracious, or entirely wanting; itching about the anus, and at the end of the nose; headache, vertigo, and great emaciation, upwards of fifty pounds in weight having been lost by the patient.

On inquiring as to the means resorted to for relief, I was forcibly struck with the long list of practitioners under whose care he had been, without obtaining permanent respite from his distressing complaint. At Scutari, afterward in the London Hospital; in the Military Hospital, Glasgow, Scotland; and again in the United States in 1857, similar treatment was attended with the same negative results.

Coming under my care May 3, 1858, I gave him, *seriatim*, pomegranate root, the kooso twice, oil of male fern twice, and ʒss. of kamala, in divided doses. He objected to the turpentine, having become disgusted with its frequent repetition. It was, however, used for one week, in small doses. The small doses not proving successful, he urged its administration in a quantity large enough to kill the monster at once. Acquiescing in his heroism, I ordered *eight ounces* to be taken at one draught, fasting. No unpleasant effect supervened, except severe and long continued purgation. It was thought the *desidertum* had been reached, as an undivided fragment thirty-one feet long was expelled; but in seven weeks joints were again dejected per rectum.

My patient was discouraged, and I lost sight of him for thirteen months. He came for advice again August, 1859. Not yet having tried the pumpkin seeds, four ounces were prescribed, as recommended by Mr. Richard Soule, in the *Boston Med. and Surg. Journal* (Oct. 8, 1851, p. 201). He passed fragments in the aggregate twelve feet. Four weeks later, pieces again appearing, he consented to another trial on a more extensive scale. Two quarts of seeds were hulled, and made into an emulsion with two quarts of water. A light diet was enjoined the day preceding, and continued throughout the treatment. The bowels being free, from a dose of oil the evening previous, a large tumblerful of the emulsion was ordered upon rising, at noon, and at bedtime. The

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emulsion was exhausted on the third day, without apparent effect, except slight catharsis. He wishing to discontinue the "truck," I furnished him another bottle, and on the fifth day of treatment thirty-seven feet of the *entozoon* was voided, including the *head*. Each evacuation was passed in a separate vessel of water, to facilitate the search for the head. Mr. W. rapidly regained his former health, and retains it at the present writing.

It will be observed that this is not the variety of tape-worm ordinarily met with in the United States. The *Bothriocephalus latus* is never met with, it is stated, in Great Britain or this country, unless in individuals who have contracted it abroad. Hence the anomaly of this case. The broad variety is, however, common in southern Russia, and the *tænia solium*, on the other hand, is unknown. The time required for expulsion in this case would seem to indicate in the *Bothriocephalus* a greater tenacity, or power to maintain itself, in the intestinal canal, than exists in the ordinary tape-worm.

—Edward Williams, æt. 28, farmer, residing near Cheviot, Ohio. Joints of the long-worm began passing from him in December, 1857. The symptoms resulting from intestinal irritation were manifested in a marked degree. The usual remedies did not afford him relief. He began the treatment, as previously recommended, March 3rd, 1860. Fifty-one hours later a large mass of worms—the *tænia solium* with *lumbrici*—were passed; to quote his own words, "a basin-full of tape-worms, mixed up with other worms." No head could be discovered, though carefully searched after. Continued the treatment two days longer, without any more fragments being observed. One year after the treatment, he pronounced himself cured.

—John Albridge, æt. 28, Englishman, employed in Swift's rolling-mill, Newport, Ky. Had been annoyed with *tænia solium* more than three years, all remedial efforts proving futile. The emulsion was administered Dec. 11th, 1861. On the third day after he dejected twenty-two feet of the worm, varying from one line to half an inch in width. The head, unfortunately, was broken off and lost. He continued the treatment another day, but passed no more fragments. He has since gained thirteen pounds in weight, and enjoys robust health.

—G. W. Randall, æt. 36,—nativity, England,—a plumber, residence 278 Cutter street. He had tape-worm nearly two years. Never experienced from it either local or sympathetic symptoms. Previous to instituting the treatment, he had taken oil of turpentine; also, the ethreal extract (oil) of the male shield fern, without any decided effect. Commenced treatment with the emulsion, April 30th, 1862. During the afternoon of the next day, he passed a single tapering fragment, over five feet in length, terminating with the head; the entire detached portion gradually narrowing in width, from one-half an inch (broad extremity) to three-fourths of a line (the head).

Remarks.—Of all the anthelmintics proposed for the extermination of tænia, the seed of the ordinary pumpkin claims our first attention. It is innocuous, inexpensive, readily procured, and by far the least disagreeable of all the vermifuge medicines. Its power to dislodge large fragments of these *en-*

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tozoa has never been questioned; but it has not succeeded, in every instance, in destroying them. This results evidently from discontinuing the remedy too soon. By maintaining the treatment from four to six days (unless the head be discovered with the fragments first passed,) success would, doubtless, result in all cases.

The administration of castor-oil during its use is not to be recommended. The emulsion itself is sufficient laxative in large doses, if a slight diet be strictly enforced. By purgation we might defeat our end, by interfering with that intimate contact with the remedy with the head of the parasite, necessary to the production of its full toxicological effect.

The specimens of these tæniæ are in my possession.—*Cincinnati Lancet and Observer.*

Treatment of Dysentery.—In the *American Med. Jour. of Med. Sciences*, Dr. J. F. Hammond, Surgeon U. S. A., gives a brief account of dysentery, as it occurred at Fort Jefferson, Tortugas, Florida. We have only space to refer to his treatment:

"The patient is first well washed in a sea bath. Then he takes an emetic of ipecacuanha. When the vomiting has ceased, he is given a scruple of calomel, and, eight hours after the latter, half an ounce of castor oil is administered. Should he, in the mean time, desire to eat, he is allowed boiled arrow root, and if thirsty, he drinks a mucilage. At the end of the first twenty-four hours he is very much improved. The treatment the second day is commenced with a general cold bath. Hope's mixture is then given, or mist. camphoræ, f℥ivss; liq. ammo. acet. f℥iij; spts. æther. nit. f℥iij; potass. nit. ʒij; syrupi limonis, f℥ij. Fiat mist. cujus capiat cochlearia, ij; larga, quarta quaque hora, which is continued until the stools are feculent, or are changed from mucous to serous. This requires from twenty-four to forty-eight hours. Then ℞.—Cretæ præp. ℥j; saponis, pulv. rhei, āā ℥j; hydrarg. cum creta, ʒij; olei anis. gtt. v; sacch. alb. ℥ss; tere bene simul. capiat ℥ss ad ℥j ter die. The general cold bath daily and the arrow-root and mucilage are continued throughout the active treatment of the disease, and care is taken that the patient is not exposed to a current of air. If there is tenesmus after the first twenty-four hours from the commencement of the treatment, an enema of tinc. opii, gtt. xxv, mucilage, f℥j is given, and repeated every hour, until it is relieved. Should there be tenderness on pressure in any part of the abdomen, cups, scarifying, are applied on the part, and repeated, if necessary; if the case is prolonged with tenderness, the abdomen is covered with dry cups daily, or by a mustard cataplasm of ground mustard and water, applied next to the skin for forty-five minutes, once or twice daily. If the case is obstinate, and there is much tenesmus, an enema of four grains of nitrate of silver, in two ounces of mucilage, increased to four grains to the ounce, is given daily."
—*From Dr. Gibbs' Weekly Summary, in Med. and Surg. Reporter.*

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Trousseau's Treatment of Constipation.

[The *Boston Med. and Surg. Journal* makes the following extract from a letter in the London *Medical Times and Gazette*, giving Prof. TROUSSEAU'S method of treating constipation:]

The patient should endeavor to void the bowels daily at exactly the same hour, when he should, for a considerable time, make strong efforts to obtain the desired result; and if these should be unsuccessful, he should desist until the following day. If, on the second day, in spite of fresh efforts, no evacuation should be made, he should immediately take an enema, first with cool, and afterwards with cold water. On the following day the same efforts must be renewed, and if they should still prove ineffectual, the patient must again wait till the next day, when another enema is to be taken if no evacuation takes place. The repetition of such endeavors always made at the same time of day, has generally the effect of not only causing desire to relieve the bowels, but actual relief in the natural way.

Another remedy is the suppositorium, which, especially for males, is easier to apply than the enema. Suppositoria of butyrum cacao are, in the majority of cases, sufficient; those made of soap have a still more energetic and certain action, but the best are those made of honey, hardened by boiling. These ought to be of the size of a small pigeon's egg; if they are slightly moistened they may be introduced into the rectum with great ease, and rarely fail to produce a rapid evacuation; but they, as well as the enemata, ought only to be employed if after two consecutive days, vigorous efforts have not had the desired effect.

The most favorable time for operating in this manner is the morning. It is then least troublesome, and every one can, immediately after getting up, devote a longer time to such experiments than later in the day. Nevertheless, it is a fact that the desire to empty the bowels is more strongly felt just after a meal; either because the accumulation of food tends mechanically to expel the superfluous residue, or because—and this is the more likely reason—the new digestive action causes preparatory muscular contractions in the whole intestinal canal. The local adjuvants ought, however, in this case, not to be employed.

Concerning the diet, the most certain means of overcoming constipation is to partake more largely of vegetable than animal food. Raw fruit and herbs are chiefly useful.

To cause diarrhœa is not to cure constipation, but to substitute one disease for another, and vegetable diet is only useful if well supported. Certain aliments taken from the animal kingdom, such as milk, have, upon a large number of persons, a slight laxative effect; milk may, therefore, always be employed, if it agrees with the stomach. Coffee with milk is, for many persons, a powerful remedy for constipation, and the same is the case with tea. Amongst beverages, beer and cider are the most suitable for costive people.

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Many want to go to stool at once after taking a large tumblerful of cold water before breakfast. Bran bread, made of three quarters of flour and one quarter of coarse bran, also greatly facilitates the action of the bowels. Many persons only find relief if they smoke a pipe or cigar immediately after a meal; and although it is not very ladylike to smoke, M. Trousseau nevertheless frequently advises ladies to try little cigarettes, if no other hygienic measures are able to overcome constipation.

Belladonna is a great favorite of M. Trousseau's in this affection. He prescribes one centigramme (about one-sixth of a grain) of extract, and as much of powdered belladonna, to be taken in the morning. After five or six days, two pills are taken, and four or five are the largest dose; but, whatever may be their number, the pills ought always to be taken at one time. If the evacuations have become regular, this medication must be discontinued, in order to give the bowels the opportunity of acting without help.

If belladonna should not have any effect, a teaspoonful of castor oil should be prescribed at the same time, and in order to render this more palatable, it may be taken in gelatinous capsules. The intestine being prepared by the belladonna, the oil has a rapid action. The dose may be repeated once or twice a week, if necessary.

There are, however, cases in which all the remedies just named prove ineffectual, when it becomes necessary to employ purgatives. These are extreme remedies, useful and even indispensable, but which must be used with much prudence and care. Generally speaking, the saline purgatives ought to be avoided; these have a rapid, nay, almost instantaneous, but only temporary action; for after their use, the intestinal secretion, for a moment over-excited, is, as it were, dried up; just as certain rapid salines act upon the mucous membrane of the mouth, where they at first produce an abundant secretion of saliva, but leave behind dryness of the mouth and thirst, which are in proportion to the primary effects caused.

It is better to have recourse to drastic purgatives, especially aloes, extract of colocynth, gummis gutti, and extract of rhubarb; these are the pills (says M. Trousseau) so extensively used by the English. M. Trousseau gives the following prescription:—℞ Aloes, ext. colocynth, ext. rhei, gi. gutti, āā 1 gramme (15 grains); ext. hyoscyamus, 25 centigrammes (about 4 grains); ol. æth. anis, gtt. ij. M. ft. pilulæ xx. One, two, or even three pills should be taken every second or third day, and all at once, whatever may be the quantity taken. They ought to produce an easy, natural, semi-diarrhœic evacuation. Hyoscyamus prevents colics, and acts, moreover, in the same manner as belladonna.

Obstinate Vomiting in Pregnancy.—Before the Union Medical Society at Knightstown, Indiana, Dr. Canaday reported another very obstinate case of vomiting in the early months of pregnancy, which he subdued with an infusion of swamp dogwood and wild yam, (*carnus sericea* and *dioscarea villosa.*)

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[From the American Medical Times.]

Foreign Correspondence.

By Prof. Chas. A. Lee.

London, May 14, 1862.

As I promised to send you some "medical jottings by the way," I embrace the first opportunity to post up to the present time. Leaving New York on the screw steamer Kangaroo, we had a very rough and uncomfortable passage of fourteen days before reaching Liverpool. As usual, I suffered from sea-sickness all the way. Were I to name all the remedies and specifics for this malady which were recommended me on board, from *salt water* to *chloroform*, I should have no room for anything else in my letter. Suffice to say, I tried none of them but *champagne*, a basket of which was sent me by a friend, on board the vessel; this, cooled on ice, and taken *ad libitum*, came nearer my idea of a specific than anything I could imagine; *taken as a medicine*, for this, and other kinds of nausea and vomiting, I give my voice decidedly in its favor. Some of my companions, miserable wretches, took *chloroform*, on some anonymous recommendation, and suffered more from the remedy, as often happens, than from the disease. *Effervescent mixtures*, like soda and seidlitz powders, and "Farrant's effervescent mixture," of like composition, answered a good purpose in some cases. Most of the sufferers consoled themselves with the idea, that the after benefits would more than compensate for the present suffering; an opinion not exactly consonant with my own experience or observations. I am not about to trouble your readers with an essay on sea-sickness; for although I know much about it experimentally, I have little knowledge of its true pathology, or proximate causes. No one is bettor acquainted with its symptoms and phenomena than myself, beyond this I make no pretensions. I will, however, venture to offer a reward of one hundred pounds sterling, to any one who will discover a certain and infallible specific, to be paid by penny subscriptions from all who experience its benefits.

The next subject which pressed itself on my attention, especially as a sanitarian, was the miserably deficient ventilation of the ship. As I occupied a cabin nine feet square, with only four other passengers, taken promiscuously, and that situated just over or near the machinery, where the smell of oil, tar, grease, coal oil, bilge-water, etc., was overpowering, and adjacent also to the cooking department, where, if I could not eat, I had all the benefits of the various savory smells given off by the various dishes, I may say that I labored under difficulties in attaining that degree of comfort which is desirable on a pleasure trip, although it might be endured with patience were there no remedy. We have studied hygiene and sanitary regulations on land long enough to transfer some of our researches, as it seems to me, to our vessels; and especially those engaged chiefly in transporting passengers. A more perfect system of ventilation on board ship is the great desideratum; and I am very glad to find it is occupying more and more the attention of the medical officers of the British as well as the American navy. Although the surgeons of the

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Royal Navy have, year after year, represented in their Reports to the Admiralty, through the Director General, the influences injurious to health which prevail on board ship, and the best means of remedying them, and though some improvements in the ventilation of the public vessels of Great Britain have recently been introduced, yet they have not become general, and many of their regular sailing packets and steamers are deprived of their benefits. The Reports, to which I have referred, are based on observations and experiences in ships of various classes and under every variety of circumstances and climate; and the same may be said of the reports of our own medical officers to our Naval Bureau. What is wanted is, the adoption of such measures as will obviate and correct the evils so fully pointed out. There is still ample room for improvement, both as regards cleanliness and ventilation, in the forecastle and steerage of our passengea vessels, notwithstanding all that has been done to better the condition of emigrants on board ship; affording them more space, by legal enactments; and also more healthy food, and better cooked, than when this class of passengers supplied themselves with provisions, and quarrelled over the coppers, in cooking it. There certainly ought to be some means of enforcing personal cleanliness among these unwashed foreigners; for to bodily filth may doubtless be attributed much of the sickness prevalent in the steerage. I trust that some of our skilled sanitarians, such as Dr. Griscom, Van Buren, or Joseph M. Smith, may turn their attention more particularly to this subject of *naval hygiene*, and prepare a work, so much needed, for the benefit of those who "go down to the sea in ships."

In passing through the great manufacturing districts of England, especially in the iron districts of Lancashire, as Wolverhampton and Birmingham, I observed much of the vegetation killed, especially the trees and hawthorn hedges, which is not much to be wondered at, considering the vast amount of noxious gases given off in the various manufacturing processes. On enquiry I find that the evil has become so great, and the injury to animal and vegetable life so extensive, that Parliament, on motion of the Earl of Derby, has just appointed a Committee to inquire into and report on the subject. The vapors which have proved so destructive to vegetation, are chiefly given off in the manufacture of soda from sea water and common salt; some establishments employing 1000 hands, and turning out 100 tons or more of soda annually. Some of the chimneys to these manufactories are nearly 500 feet high, for the purpose of carrying of and causing to be dispelled in the air without injury, the muriatic acid and other vapors generated in the process of manufacture. But this has proved an inadequate remedy, and heavy damages have repeatedly been recovered by the large landed proprietors in their neighborhood, from the owners, for injury done to their crops, hedges, and trees, etc.; so that in many cases, the manufactories have been destroyed or abandoned. The process of the manufacture of soda, in England, is carried on by the decomposition of common salt by sulphuric acid; and in most of the manufactories I find that the manufacture of sulphuric acid also is carried on in the same building, by condensing the sulphurous vapors given off, and, in three cases,

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no injury is sustained by the neighborhood, while the profits are much increased. A patent was granted several years ago, to prevent injury from such acid vapors by passing them through water, which has a strong affinity for them, thus condensing and utilizing them. This is said to have proved very valuable to the patentee, though it cannot have been generally introduced.

The injury to animal life is less obvious throughout these districts than to vegetation. This is shown by the high mortality rate, amounting in some places over 20 instead of 8 in 1000, the average mortality throughout England.

Since reaching London, I have visited some of the hospitals, and become acquainted with several medical men of distinction. Several whom I knew when here in 1849, are now gone; as Bransby Cooper, Dr. Pereira, Sir John Forbes, R. B. Todd, Dr. Quekett, Marshall Hall, etc. Their places, however, are filled by men of equal ardor and devotion to science, if not of equal merit. The improvements and advance in medical and surgical science within the last ten years are very obvious; and for many of these improvements, the world is indebted to London practitioners. Dr. Copland, who may certainly be ranked among the first of living practitioners and writers, is still actively devoted to the practical duties of his profession, notwithstanding the immense amount of physical and intellectual labor he has accomplished. Sir B. Brodie has recently retired from practice, owing to the failure of his eyesight, although he has reached that age when men naturally seek for quiet and repose. No one, in modern times, has attained a more exalted professional reputation than Sir Benjamin; and it will prove as durable as it is eminent, for it is founded on researches which have contributed to enlarge the boundaries of science; while he has ever proved an example, and exhibited a character calculated to elevate the medical and surgical profession in the respect and esteem of society and the world. He, undoubtedly, has the great consolation in his declining days, to feel that he has acted his part well in life, and discharged his professional duties conscientiously. He has retired to a beautiful situation, at (Broome Park) Betchworth, Surrey.

I shall endeavor to write you weekly, though my time is much occupied. In my next, I will confine myself to subjects more strictly professional.

LONDON, June 1, 1862.

It is not my design to report individual cases, which I may observe in my visits to the different hospitals. The most interesting of these are regularly reported in the London *Lancet* and *Medical Times*, and can be copied into your pages, if thought desirable.

The London surgeons operate more fearlessly, and with more rapidity than ours do on our side of the Atlantic; but I very much doubt whether more successfully, except in particular cases. Thus I saw Mr. Ferguson operate for double cleft palate last week, and the operation was completed in fifteen minutes. He afterwards enformed me that the average duration of the operation of staphyloraphy in his hands was ten minutes, and that out of one hundred and five cases, he had met with complete success in one hundred and

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two. This must be admitted to be extraordinary activity and marvellous success. But much of this success is owing to previous frequent manipulations by the finger of the patient, or a tooth brush, of the fauces and parts adjacent, and to the very free separation of the velum palati from the bone, so as to allow great distension. The profession is indebted to Mr. F. for this practice, which he introduced many years ago, but which has recently been claimed by another surgeon as having originated with him. In the removal of scirrhous breasts, which I have seen done by Mr. Paget, Mr. Skey, and Mr. Ferguson, I think the average time employed in the operation was not over two minutes, although in every case chloroform was given, and generally by an inhaler, which admits freely the atmospheric air. One great advantage attending this mode, is that we can regulate exactly the quantity administered; usually from twenty to thirty drops are introduced, and it is rarely necessary to use any more. This shows, at least, how much our surgeons are in the habit of wasting, in their mode of administering it on a sponge or napkin; and by the way, I may mention that a death from chloroform has occurred near my lodgings within the last few days under the following circumstances: The patient was laboring under fistula. Chloroform was given on a napkin. It appearing to take no effect, more chloroform was poured on, and this was repeated twice. On the third application the patient turned over, and immediately ceased to breathe. All attempts to restore respiration failed. Autopsy showed that the walls of the heart were very thin, and the cavities dilated, with great insufficiency of both mitral and tricuspid valves. There was also fatty degeneration of the organ. Both lungs were strongly adherent to the chest. Throughout the greater portions of their extent, Dr. Gant, of the Royal College of Surgeons, testified on the inquest, that owing to this diseased and enfeebled state of the heart, and to the lungs being incapable of expanding from the extensive adhesions, they necessarily failed under the influence of chloroform, and death resulted instantaneously from paralysis of the heart. I think the case goes far to show that the condition of these organs should be correctly ascertained, if possible, before we venture to give this powerful agent.

I have said that British surgeons operate with more celerity, but perhaps not more success than American surgeons. If I wanted proof of this I might quote lithotomy statistics. According to Mr. Bryant (London *Lancet*, May 3d, p. 459) at Guy's Hospital, fifty-seven per cent. of patients above the age of forty, who have been operated on for stone, have died, and the gross result of lithotomy in the provinces is about the same as at Guy's. There are, however, instances where the mortality is not so great. Thus in the Norfolk and Norwich hospitals, only twenty-three per cent. of patients above the age of forty have died after lithotomy. But if any one will compare these results with those of American surgeons, as recorded in Gross's Surgery, he will find that the percentage of deaths is far greater than with us. Indeed, one of the most distinguished operators for stone in London told me, that he believed the fatality of this operation in Great Britain was as great at the present time as it was one hundred years ago!

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I am very glad to find that in the opthalmic hospitals in London and the provinces, as well as in the military hospitals, as at Chatham, the *opthalmoscope* is in general use and highly appreciated. In no branch of our art have I seen such decided improvement within the last twelve years, since I was here, as in opthalmic surgery; and much of this progress is owing to our being able to explore the deep textures of the eye by the ophthalmoscope. This admirable instrument was nearly perfect, when introduced a few years ago by Helmholz; and now there is but one opinion as to its effectiveness, and to its immense importance, in enabling us to investigate diseases, especially of an obscure nature, in this delicate organ. And what surprises me, is to see the degree of tolerance of such examinations, in almost every kind of opthalmic disease; a result we certainly should not have looked for *à priori*. Temporary dimness of vision may in some cases be induced by its use; but by a proper regulation of the quality of light admitted into the eye, we may employ it with advantage in acute glaucoma, or even in retinitis. A metallic speculum is now preferred for the instrument instead of glass, as it is more portable and less brittle, has a small, thin-edged sight hole, and but one reflecting surface. Besides, a metal reflector always gives a clearer and better defined image than a glass one. It is true that some experience is necessary to enable one to derive all the advantages from this instrument of which it is capable; but the same may be said of the stethoscope or any other instrument. *The devision of the ciliary muscle* of the eye for glaucoma, opacity of cornea, etc., may also be mentioned, as evidence of progress in the treatment of this class of diseases. This operation I saw performed several times, and very skilfully, by Mr. Hancock of the "Royal Westminster Ophthalmic Hospital," and with decided benefit. Thus, out of 511 principal operations performed at this institution during the last year, I find that this operation has been resorted to in 118 cases. Of a variety of affections, about 1000 patients are here annually treated, and there is no better place for students to study this class of diseases.

Mr. Czermak, of Prague, the inventor of the *Laryngoscope*, has been in London recently, and showing upon himself how readily and successfully the instrument may be used. Mr. Paget speaks favorably of it, but doubts whether it can be successfully introduced into practice. It is something like injecting the bronchial tubes—very easy to describe, and very difficult to accomplish. Mr. Czermak showed, as long ago as 1859, that it was possible, by the aid of his laryngoscope, to apply local cauterizations in the larynx and the naso-pharyngeal cavity; but the same can be done without. But then, how can we ascertain whether there is disease enough in these parts to require local treatment? In some cases, probably, we cannot, but as a general rule I think we can. The rational signs, in such cases, are generally pretty clear and decided; I know that we have reports that polypi of the larynix have, in two cases, at least, been removed by the aid of this instrument. But, as Mr. Paget remarked to me, it must always be a very difficult operation, inasmuch as the image is reversed, and every one knows how very difficult it must be to operate under

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such circumstances. Here, we have to introduce the laryngoscope with one hand, and keep it immovable in such a position and inclination, as to reflect the desired image, while with the other, holding a suitable instrument, we proceed to operate. But the difficulty I have named is so great, that it would require a constant practice, and for a considerable time, to enable a surgeon to attain even a moderate degree of success in the use of the instrument. Owing to these causes the laryngoscope has been, as yet, very little used in this metropolis, and I may very safely predict that it will be a long time before it will be. The inventor, however, is a very talented and ingenious surgeon, and certainly deserves, if he does not meet with, great success. That scientific merit, sooner or later, meets its just reward, I may mention the splendid and unprecedented success, which has attended the career of our friend, Dr. Brown-Sequard, since he came to this city. In no instance has great professional success created less envy, inasmuch as all cheerfully acknowledge that it has been fairly earned. As the head of the great "National Hospital for the Paralized and Epileptic," instituted by the Lord Mayor, at the Mansion House, Nov. 2, 1859, and under his presidency, and supported mainly by the nobility, Dr. Sequard has found a theatre worthy of his science and his skill; and with considerable success, which has attended his efforts, demonstrates the soundness of the physiological and pathological views he has inculcated in his various writings and lectures. This success, moreover, has, as its fair and legitimate consequence, introduced him into the largest practice, in the greater class of nervous affections, of any practitioner in England. The out patients of his hospital number at this time over 800, while his private patients are so numerous as to occupy every moment of his time. He is called on, daily, by patients from almost every part of Great Britain, and no small portion of them belong to the class of the nobility. Surely, such an example as this may well be held up to the younger members of our profession, to show them that industry, perseverance, energy, and real merit, will sooner or later meet its due reward. I may also mention, by way of example, that since Brown-Sequard commenced his scientific investigations he has never attended a place of amusement, or allowed anything to draw of his mind and attention from his pursuits; and although he resided in Paris, at the time of the great International Exhibition, and daily passed by the building, he never entered it, and has no idea, to this day, what there was in it.

LONDON, June 8, 1862.

Passing over, for the present, many interesting matters I have observed in the different London Hospitals, I will present to your readers some account of the organizations of the British "Practical Army Medical School" at Chatham. Having been politely favored by Dr. Gibson, Director-General of the Medical Department of the British Army, with a letter of introduction to the professors, I yesterday took the cars at London Bridge, and after a pleasant ride of an hour and a half through a richly cultivated portion of Kent, reached Strood Station, and taking a ferry-boat crossed the Medway, and soon found

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myself at old Fort Pitt, the seat of the School. A more beautiful and commanding position for an establishment of this kind could nowhere be found; situated as it is, several hundred feet above the river, entirely overlooking the old city of Rochester, its majestic old Castle and Cathedral of Norman architecture; the city of Chatham, with its forts, barracks, navy-yard, arsenal, convict prison, etc., together with a magnificient region of country for many miles in extent; and the river crowded with ships of war, and numerous vessels lately engaged in the suppression of the slave-trade. The Army Medical School, I may remark, grew out of the recommendation of the Royal Commission on the Sanitary State of the Army, made in 1859; which recommendation, I believe, was the result of observations in regard to the qualifications of assistant-surgeons during the war in the Crimea. The School went into operation in 1860, with four professors, viz. T. Longmore, Esq., Professor of Military Surgery; Dr. Morehead, Professor of Military Medicine; Dr. Parkes, Prof. of Hygiene, and Dr. Aitkin, Prof. of Pathology: with a salary of £700 sterling to each professor. An attendance of at least four months at this School is required of every candidate for admission into the medical service of the British and Indian armies. The candidate must be unmarried; at least twenty-one, and not above twenty-six years of age; must produce certificates of moral conduct and character; must labor under no mental or constitutional disease; nor any disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. He must possess a diploma in surgery, or a license to practice it, from the Royal College of Surgeons of England, Scotland, or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or some other corporate body legally entitled to grant a Diploma in Surgery, or a license to practice it. He must also possess a degree in medicine, or other legal qualification to practice medicine in Great Britain or Ireland.

If he possess the foregoing qualifications, the candidate is examined on anatomy and physiology, surgery, medicine, including therapeutics, diseases of women and children, and pharmacy. The examination is practical, and includes operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bed-side. He is also examined in comparative anatomy, zoology, and botany, with especial reference to materia medica. The names of succesful candidates are then sent to the Director-General, or the Physicians of the Council of India, and communicated to the Professor of the Army Medical School, the names being arranged in three classes:—1st. Those who have passed a pre-eminently distinguished examination, arranged in their order of merit; 2d. Those who have passed a creditable examinatian, slmilarly arranged; and 3d. Those who have passed the *minimum* examination, also arranged in alphabetical order, according to merit. A statement is also furnished the professors in regard to the topics or branches in which each has excelled or fallen short, which enables the professors to carry out their instructions with a definite aim as regards each class. After passing this examination, which is a rigid one, each candidate is required to attend closely one entire course of practical instruction at the School, before

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being admitted to his examination for a commission, which is on—1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases, and Injuries incident to military service. These courses are not less than four months' duration. This examination is conducted by the Professors, but the Director-General, or medical officers deputed by him, or the Physician to the Council of India, are generally present, and take part in it. If the candidate pass satisfactorily, he is then eligible for a Commission as Assistant Surgeon.

While residing at the Army Medical School, each candidate receives an allowance of five shillings sterling per day, without quarters, to cover all costs of maintenance; and he is required to furnish himself with uniform, *i. e.* the undress uniform of an assistant-surgeon, without the sword. There is a large military hospital in connection with the School, now containing over three hundred patients, sent from all parts of the British dominions; thus illustrating the diseases of every climate and quarter of the globe. The School has a distinct and independent existence under the Secretary of State for War, and is governed by its own Senate. It is open to all Army Medical Officers. By the kindness of Dr. Parkes, I was shown by him every part of the establishment, and had everything fully explained to me. The museum is most extensive, and consists of four divisions:—1st. A collection of pathological anatomy, having special reference to the more prevalent diseases of the army. This is one of the most extensive, and I think the most valuable collection of morbid specimens I have ever seen; gathered, as it has been, from all parts of the world. A curator is constantly employed preparing and taking care of the specimens. 2d. A collection of specimens in geology and natural history. The Museum of Natural History is especially rich, containing many preparations and specimens not found even in the British Museum. 3d. A collection of materia medica and alimentaria, containing specimens of more important articles, both in their natural and prepared states; and of the principal seeds, grains, pulses, and other dry and prepared articles of food, from all parts of the world. 4th. A collection of plans and models of whatever is used in the army for the conveyance, support, or protection of wounded men; models of tents, hospitals, and the like. A bare enumeration of these articles would fill several pages. They readily teach through the eye, what could not be understood by description alone. The Library is very large, and contains all the standard works in every branch of medicine and the allied sciences. Attached to the Library is an ample Reading Room, well furnished with maps, plates, prints, periodicals, etc., though I saw none from the United States among the large number on the table. Two sets of candidates for commission are ready every year; so that six months' residence at the School and Hospital is required, including courses of not less than four months' instruction by lectures. I need not add that the Lectures and Practical Instructions delivered at this School are directed exclusively to the Specialities of Military Medical Service. For example, the lectures on *Hygiene* are directed to impress forcibly on the mind of the student the whole principles on which the

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prevention of disease is based, not only in their scientific but in their practical aspect; and from thence the professor points out the special application of these principals to the preservation of the health of troops in barracks, garrisons, stations, camps, and on marches, both by practical instruction in the problems of Army Hygiene, and by reference to maps, diagrams, models, instruments, and other modes of illustration. The professor of *Clinical and Military Medicine* attends to clinical instruction in the Hospital, and gives systematic lectures on the diseases of armies. His teachings at the bedside have special reference to the more prevalent diseases of armies. He exercises the pupils in drawing up accurate histories of cases of disease under treatment; and examines and practises them in various methods of diagnosis, by auscultation, the use of the stethoscope, and the application of chemical tests. He delivers clinical lectures on the cases under treatment, and illustrates the management of hospitals, as to cleanliness, ventilation, nursing, etc, and points out the hospital diets in different diseases, and stages of disease, and during convalescence.

The professor of *Clinical and Militarg Surgery* also gives a course of lectures of a special and practical character, having constant reference to clinical instruction in the surgical wards of the hospital. So also the lectures on *morbid anatomy* are richly illustrated by specimens, and aided by accessory methods of observation, such as carefully recorded histories of cases of the more important and severe diseases prevalent at the military stations abroad. The students are instructed practically how to conduct pathological investigations and post-mortem examinations; how to examine the viscera; and how the results of diseased processes are to be distinguished from post-mortem changes, etc. A full course of practical instruction in the use of the microscope is given, together with its application in determining the nature of diseased conditions. I counted nineteen large achromatic microscopes in use. The students are shown and taught how to arrange and manipulate the instrument; the various modes of examining objects by it; of drawing the objects seen; of measuring the dimensions of the objects examined; how to examine tissues and morbid products, and apply chemical agents for their analyses, under the microscope; and lastly, they are taught how to preserve microscopic objects. Practical chemistry is thoroughly taught, so that each student is qualified to analyse foods, drinks, poisons, soils, water, urine, blood, etc. He is also instructed in the mode of preserving specimens illustrating diseases, or comparative anatomy, or natural history, so that they may be sent home from abroad.

I have thus given a very full account of this army school, inasmuch as it will serve as a very perfect model for one of a similar kind in our own country. It is very evident that such a school is imperatively needed; especially if, as seems most probable, we shall have to keep a large army in the field, for a long time to come. Our medical schools do not, at present, furnish that instruction which is specially needed for the military service, and this will be evident from the enumeration of topics and courses of instruction pursued in the army medical school at Chatham. Indeed, it is impossible in our medical

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schools, as their courses are at present arranged, or even under any circumstances (inasmuch as they are particularly designed to qualify for civil practice), to furnish that kind and degree of instruction, which is needed to prepare a young man for the proper and satisfactory discharge of his duties as a military surgeon. I sincerely hope that long before I return, this subject may be so brought to the notice of our Government, as to result in the establishment and endowment of a MILITARY MEDICAL SCHOOL, which will compare favorably with that of Great Britain.

Selections.

UTILITY OF COFFEE IN SOLDIER'S DIET.—M. Larrey, having been called upon by the Council of Health of the Department of the Seine for his opinion as to the desirableness of extensive employment of coffee in the soldier's diet, speaks in his reply in the warmest terms concerning its use. He states that upon his father's recommendation it was employed freely in Algeria, with the best effects upon the soidiers's health, as a substitute for brandy. It has also seemed to act in some measure as a prophylactic to intermittent fever.—*London Med. Times and Gazette; Boston Med. and Surg. Jour.*

IPECACUANHA IN DIARRHŒA AND DYSENTERY.—In the *San Francisco Medical Press* for January, our friend, Professor E. S. Cooper, makes the following remark :—

" We have seen a grain or two of ipecac, with the same amount of ext. of gentian, every two hours, act almost like a charm in chronic dysentery, where all other remedies have failed. * * * " The treatment of two diseases, apparently so different as acute dysentery and chronic diarrhœa, with the same remedy, might strike the fastidious nosologist as ridiculous, but experience has taught us that such is the case, and that ipecacuanha is that remedy."

In the *London Lancet* for July 31 and Aug. 14, 1858, Dr. E. S. Docker spoke very highly of ipecac, in large doses, in the treatment of dysentery. His doses ranged from ten to ninety grains. In order to make the stomach tolerate such doses, he says:

" In the first place, a sinapism is applied over the region of the stomach, and simultaneously a draught given containing a drachm of laudanum. Half an hour after, when the sensibility of the stomach has been, by the action of the opium and counter-irritant, as much as possible diminished, and the patient's attention is occupied with the sinapism, or by conversation, the ipecacuanha is administered."

In regard to the result of such treatment, he says :

" Out of upwards of fifty cases of dysentery, I lost *but one*, (in former years the mortality ranged from ten to eighteen per cent.) and in the instance in question death was caused by abscess in the liver: the primary disease had been not only cured, but very thoroughly cured, as I shall hereafter show."

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* * * "The action of these large doses is certain, speedy, and complete; and truly surprising are sometimes their effects." * * * "The evacuations, from being of the worst kind seen in dysentery, have not gradually, not by any degrees, however rapid, changed for the better; *they have ceased at once completely*. There has been no *inclination* even to stool for twenty-four or thirty-six hours, the patient all the time in a state of delightful ease and freedom from pain; then at last, without aid of any kind, a perfectly natural, healthy evacuation, all irritation, pain, and tenesmus having, at the same time, entrely ceased."

In the cures thus effected, Dr. Docker says there is no disposition to relax. —*From Dr. Gibbs' Weekly Summary, in Med. and Surg. Reporter.*

DIPTHERIA.—Dr. S. J. Parker, of Ithaca, N. Y., writes that at least some cases of diphtheria commence in the tonsils; then follow bags of water on the uvula, and last the fatal membrane in the trachea. In one case, where he was about to announce a hopeless prognosis, the favorable position of the tonsil induced him to lance it through and through a half dozen times, with a bistoury, cutting, also, the bags of water on the palate. Next morning the laborious suffocating breathing was gone, and the patient recovered rapidly. Several other cases confirm Dr. Parker in the through and through lancing of the tonsil, one or both as required. He has no faith in the iron preparations. His main hope is in excessive doses of quinine and nitrate of potash. He thinks belladonna more valuable than the chloride of iron.—*Med. and Surg. Reporter; Cincinnati Lancet and Observer.*

TREATMENT OF DIPHTHERIA.—In a letter from Fort Pickens, Dr. C. Powers, Assistant-Surgeon Seventy-fifth Regiment, N. Y. V., mentions a peculiar mode of treatment employed with great success by Dr. Benedict, the Surgeon of the same regiment. On the first appearance of the exudation, or as soon thereafter as the case is seen, a thorough emetic of sulphate of zinc is administered. In a few hours after the emesis, the morbid growth begins to disappear, and convalescence rapidly succeeds. Little after treatment seems to be needed, though in the worst cases sometimes chlorate of potash and quinine are administered.—*Boston Med. aud Surg. Journal; Ibid.*

MANEGEMANT OF PLACENTA PRÆVIA.—Dr. Charles Clay, of Manchester, proclaims, in the *Glasgow Med. Journal*, the most preferable met hodto be the simple detachment of the placenta from the os by the fore-finger, leaving the rest to nature. In an experience of forty years he never witnessed any bad consequences from this practice, and adds that there is infinitely less violence done, the danger much reduced, future difficulties are of less importance, and the results far more favorable. With version and immediate delivery, the fatality to the mothers has been one in three, and to the child one in two, while with simple detachment of the placenta it appears from the reports of Prof. Simpson, Dr. Radford and Dr. Clay, that only one mother died of forty-four, and one child in five cases.—*Am. Med. Times; Ibid.*

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Treatment of Puerperal Fever.—In a case detailed by Dr. G. H. W. Herrick, of Billerica, Mass., the treatment consisted of opium in pills, one grain every two hours; at first with two grains of calomel, but from the second day onward in conjunction with one or two grains of the sulphate of quinine. Cold to the head, hop fomentations to the abdomen. On the sixth day the opium was discontinued, the hop fomentations on the seventh; beef-tea and chicken-broth given with the quinine; wine-whey and brandy in table-spoonfuls every three hours. Complete recovery in less than four weeks.—*Boston Med. and Surg. Journal; Cincinnati Lancet and Observer.*

Treatment of Puerperal Fever.—In an epidemic of this disease, Prof. Von Ritgen adopted, in his obstetrical clinique, the following treatment. One-eighth of a grain of morphia, two, three or four times a day, according to the violence of the abdominal pain. An hour after the dose of morphia, a spoonful of a mixture of camphor was administered, consisting of: camphor, half a scruple; gum arabic, one dram; chamomile water, three ounces; solution of acetate of ammonia, one ounce; white sugar, one ounce. An hour after this the patients took one grain of quinine, then another dose of morphia, and so on, until the symptoms decreased, which was the case with all patients hitherto treated in this manner.—*Med. Times and Gazette; Ibid.*

Singular Case.—Dr. M. M. Eaton, of Peoria, describes the case of a woman who had a large family, the youngest child being five years old. She was regular from the time she weaned her last babe till the last of December, 1860, when her catamenia ceased. For four months now following she had morning sickness, after which flooding came on and continued in a slight degree all summer. October 13th, 1861, Dr. Eaton found her in bed, looking anæmic, pulse 100; complaining of flooding and pains like those of labor, although she thought not to be in the family way. Blood was flowing freely from the vagina, the os uteri dilated to the size of a quarter of a dollar, and through this an inferior member of a fœtus protruded. On slight traction, a dead fœtus came away, apparently about four months old, somewhat shriveled, but well formed. The funis was broken, but did not bleed. The placenta being retained, and hæmorrhage still going on, wine of ergot was administered to bring on uterine contractions. After the expulsion of the after-birth, no hemorrhage of account occurred. Half the placenta was shriveled up, and of a dark brown color; the remainder as well as the cord so soft that it could be easily torn to pieces with the fingers. No offensive odor was emitted.—*Chic. Med. Journ; Ibid.*

Early Discharge of the Liquor Amnii.—In a case reported by Dr. W. T. Davis, a negro woman, supposed to be in labor, was found with the os dilated to the size of a dime, the liquor amnii escaping freely, and she complaining of pains and uneasiness in the back. Her bowels were evacuated by a dose of castor-oil, the pains ceased, and the patient enjoyed usual health. Ten days and three hours (243 hours) later she was delivered of a living child.—*Cin. Med. and Surg. News; Ibid.*

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Pharmacy.

ON SYRUP OF IODIDE OF IRON.

By Dr. W. H. Pile.

To the Editor of the American Journal of Pharmacy.

Dear Sir,—The sample of Liquor Ferri Iodidi I send with this note, has been exposed to the air in a wide-mouthed vial for several weeks, with no other apparent change than an increased density, arising from loss of water by evaporation.

As I had previously been unable to prevent this article, as made by the usual formula, from losing its fine green color and becoming brown, I give you the method of its preparation, that you may judge whether the heat employed would be objectionable in any point of view.

℞ Iodine..... ℥ ij.
Iron filings..... ℥ j.
Sugar..... ℥ xvi.
Water..... q. s.

Mix the iodine with four ounces of distilled water in a porcelain vessel, and gradually add the iron, stirring constantly, and avoiding much increase of temperature. When the liquid acquires a light greenish color, filter it into a boiling syrup made from the 16 ounces of sugar with 6 ounces of distilled water. When the solution has all passed, pour two ounces more distilled water gradually upon the filter; continue the boiling a few minutes longer, and lastly, when cold, add distilled water until the whole measures 20 fluid ounces

Note by the Editor. The formula suggested by Dr. Pile is like that adopted in the Pharmacopœia of 1860, which is nearly as follows:

℞ Iodine..... two troy ounces.
Iron filings..... one " "
Simple syrup..... sixteen fluid ounces, or q. s.
Distilled water..... a sufficient quantity.

Mix the iodine with three fluid ounces of water in a glass flask, and gradually add the iron filings, with agitation, and shake until all the iodine has combined. Place the syrup in a capsule, heat it to the boiling point, and filter into it the concentrated solution of iodide of iron, then having washed the filter with a little boiling distilled water, complete the measure of 20 fluid ounces if necessary with simple syrup and mix.—*Am. Jour. of Pharm.*

COMPOUND INFUSION OF GENTIAN.

This infusion is frequently ordered by physicians in Philadelphia, and when made officinally, spoils too soon to keep on hand in quantity, while to prepare it whenever prescribed, often takes longer than is convenient, even if the immediate percolation process of Grahame is employed. A concentrated tincture, which will remain unchanged, containing such a proportion of alcohol, that

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when diluted with the requisite quantity of water, the mixture will agree with the formula of the Pharmacopœia, obviates the difficulty completely. Such a one is made as follows:

℞ Gentian, in powder.....two ounces.
Orange peel, " .....
Coriander " .....each half an ounce.
Diluted alcohol.....sufficient.

Make a pint of tincture by percolation. For compound infusion of gentian, add four fluid ounces of this tincture to twelve fluid ounces of water. Thus made, it contains the proper proportion of alcohol, and is of officinal strength in gentian, orange peel and coriander, and may possibly be more effectual on occount of the stronger menstruum used, while the dispenser does not detain the patient, nor have to send the medicine by his own messenger.—*Am. Jour. of Pharm.*

A NEW VOLATILE ACID IN HOPS

Has been discovered by Dr. F. L. Winkler. Lupulin is distilled with water acidulated with sulphuric acid; the distillate is moderately heated with pure carbonate of lime, and the filtrate evaporated. The lime salt is of a gummy appearance, and possesses the strong odor of hops, like the other salts of the same acid, which resembles valerianic acid. The author is now investigating it.—(N. Jahrb. d. Ph. xvi. 134.)—*Am. Jour. of Pharm.*

THE QUANTITY OF IODINE IN COD LIVER OIL

Was estimated by S. Neininger, by saponifying the oil with caustic soda, incinerating the soap,* exhausting the ashes with alcohol, distilling and precipitating with nitrate of palladium. 500 grm. oil yielded .396 Pd. I=.278 I=.0556 per ct.—(N. Jahrb. d. Ph. xvi, 134.)—*Ibid.*

ODONTINE TOOTHPASTE.

96 parts prepared oyster-shells, 4 p. pumice stone, 12 p. orris root, 20 p. Castile soap, 16 p. syrup, 1 p. oil of peppermint, 1.12 p. oil of cloves, 10 p. water, 10 p. alcohol; the whole to be well mixed and dried.—(Winkler, N. Jahrb. d. Ph. xiv. 309.)—*Ibid.*

ON COLOCYNTH.

Prof. Walz recommends the process of Hübschmann for preparing colocynthin sufficiently pure for medical use. The process consists in precipitating a concentrated aqueous infusion with carbonate of potassa, and purifying the precipitate by dissolving it in ether. The colocynthitin (see A. J. P. xxxi. 331) proves to be a white crystallizable resin destitute of taste, of the composition of C_{40} H_{32} O_9.—(N. Jahrb. d. Ph. xvi. 10, 11.)—*Ibid.*

*It is to be presumed that the soap, together with the mother liquor, was incinerated, as the latter would contain much of the iodine.

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PREPARATION OF PURE NITRATE OF SILVER.

By M. Lienau.

Attack cupreous silver containing copper by nitric acid; to the solution, sufficiently concentrated, add chlorine water, freshly prepared, which precipitates the silver only. Then wash the precipitate in chlorine water, which prevents the chloride of silver from decomposing under the influence of light, and renders it more speedily soluble in solution of ammonia; when well washed, dissolve it in that liquid, and plunge into the solution a well cleaned copper-wire. As the copper dissolves, the silver is precipitated, and is deposited as a brown powder; the operation is at an end when the wire preserves its brightness after being washed in water.

To render the precipitated silver perfectly pure, it is only necessary to wash it in ammoniacal water.—*Chem. News, London, April* 12, 1861, from *Archiv der Pharm.; Am. Jour. of Pharm.*

Editorial.

FOREIGN CORRESPONDENCE.—We commence in this number the publication of a series of letters from our old contributor, Prof. CHARLES A. LEE, to the *American Medical Times.* From the well-known ability of Prof. LEE as a writer, and judging also from the letters already published, we believe this correspondence will prove interesting to the majority of our readers; and we intend, therefore, to continue it monthly.

SURGEON-GENERAL'S OFFICE, June 5, 1862.

THE Secretary of War having authorized in certain cases the employment of civilians as cooks and nurses for duty in General Hospitals (only), the following rules and instructions are published for the information of all concerned:—

REGULATIONS FOR THE HOSPITAL CORPS OF THE UNITED STATES ARMY.

The men of Hospital Corps will receive each $20.50 per month, besides clothing, rations, and medical attendance.

They will be under military discipline, and subject only to the orders of the Medical authorities, and will wear the undress uniform of a private soldier, with a green half chevron on the left forearm.

Their duties will be either nursing the sick and wounded of the Army in Hospitals, cooking, or any other duties with the sick at the discretion of Medical Officers.

They will be divided into squads of eleven, one of whom will be responsible for the efficiency of the rest. One squad will be allowed to every one hundred patients.

At the usual roll-calls, the chief of the squad will answer for the rest to the Hospital Steward, who will thus learn the number of vacant beds in each

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ward, and all other particulars concerning the condition and wants of the hospital, which he will report to the Medical "Officer of the Day." The term of the service of the Hospital Corps will be according to the necessities of the service, or during good conduct.

The amount of pay and clothing received by each nurse, with date, will be recorded on their contract, which will be as a Descriptive List to go with the nurse.

The senior Medical Officer in charge will make a monthly pay roll of the Hospital Corps similar to Form 12, Medical Regulations, except the rank and designation, and transmit the same for payment to the nearest Medical Disbursing Officer.

Surgeons in charge of General Hospitals, when so authorized, may make contracts with persons for such service according to the provisions set forth herein. WILLIAM A. HAMMOND, Surgeon-General.

NOTE.—It is hereby enjoined upon all Medical Officers that they shall not avail themselves of this special authority of the War Department without first receiving permission of the Surgeon-General to do so, on making a full statement of the facts in the case, and clearly setting forth the reasons why the permission should be granted, except in cases of immediate necessity and urgency, and then the Commanding Officer must approve. In such exceptional cases the facts will be promptly reported to the Surgeon-General with the necessary explanations, together with a request that permission be given to continue the employment if the necessity still exists.

THE ingenious tourniquet recently devised by Prof. Charles A. Lee and Dr. Lambert, of Peekskill, N. Y., bids fair not only to become very extensively used in the army, but also to be the means of popularizing the art and habit of self-cure after wounds upon the battle-field. This admirable instrument, which was fully described and illustrated in the *Medical Times*, vol. iv., pages 280–281, has already been officially ordered to be furnished to their troops by the States of Connecticut, Maine, and New Hampshire.

We congratulate both the soldiers and the inventors of this improved tourniquet upon the prospective usefulness of the instrument. Many a bleeding limb will have its life-current saved, and without the usual impediment to the general circulation and muscular motion of such limbs wounded soldiers may march from the battle-field with this simple tourniquet self-applied. It is a timely improvement.—*American Med. Times.*

BOUND VOLUMES of the *Journal of Materia Medica* for 1859, 1860, and 1861, will be forwarded for $1 each, postage paid.

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THE

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Narcotics.

BY JOSEPH BATES, M. D.

Datura Stramonium.

According to the Linnean artificial classification, this plant belongs to class Pentandria, and order Monogynia. Natural order, Solanaceæ. It has a variety of popular names, in different localities. It is more commonly called thorn-apple. In Virginia it is familiarly known as Jamestown weed; it derived its name from the circumstance that a party of soldiers at Jamestown, Va., were poisoned by the leaves of this plant which they boiled, and ate as greens. It is also called stinkweed, and apple-peru, etc.

Generic Characters.—Calyx tubular, angled, caducous, with a permanent orbicular base; corol funnel-form, plaited; capsule four valved, two celled, and each cell half divided; generally thorny, or aculeus.

Specific Description.—Flowers white, sometimes inclining to a slight purple, erect or nodding, axillary, solitary, on short peduncles. Blooms in August; annual; pericarps spinose, erect, ovate, four valved, four celled, seeds many, reniform, and attached to a longitudinal receptacle occupying the centre of each cell. Leaves ovate, glabrous, angular-dentate, on short, round petioles in the forks of the stem, alternate, five or six inches long, irregularly sinuated, of a dark green color on the upper surface, and paler beneath. The root is thick, fibrous, and white. The whole

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plant emits a rank narcotic odor. The leaves, roots, and seeds are officinal.

Medical History.—There is no certainty that the ancients had any knowledge of the medicinal powers of this plant. Its native country is not positively known. It is probable, however, that it is a native of the East Indies. It grows spontaneously in Asia, Europe, Canada, Mexico, Peru, and in all parts of the United States.

STORCK, of Vienna, published an account of his experiments with an extract of stramonium in 1762, since which time it has held a prominent place in our materia medica of indigenous plants.

COPLAND regards stramonium as one of the best remedies that can be prescribed in the spasmodic form of asthma. He recommends smoking it as tobacco. During this process the patient may either draw a portion of the smoke into the lungs, or swallow some of it, or the saliva which has become impregnated with it. It is very advantageously smoked along with aniseed, or with a small portion of tobacco, he thinks. He would also employ it internally during the asthmatic paroxysm. He also speaks of the efficacy of this agent in certain forms of epilepsy, and quotes quite a list of eminent physicians who are favorably inclined to its employment.

Stramonium was considered of service by BEGBIE in the treatment of tetanus (Trans. of Med. and Chirurg. Soc. of Edinb., v. 1, p. 289).

In the Medico Chirurgical Review of 1825, Vol. 2, p. 491, is a favorable notice of this agent. The author says, that "little attention was paid, in this country, to this powerful narcotic, till Dr MARIET'S paper on the subject appeared in 1816. Dr. STORK employed it at Vienna, in cases of mania, epilepsy, and convulsive diseases, many years previously. The inhalation of the fumes of stramonium was much employed in this country, some years ago, in spasmodic asthma, and we have seen several instances of its efficacy in this distressing disease. It has also been used a good deal in painful affections of the nerves. Dr. BEGBIE considers the narcotic properties of the medicine as decidedly superior, in some cases, to those of other medicines of that class. In no case did he perceive any bad effects. A temporary unpleasant nervous sensation in the throat was observed in one case. The form used was Mr. Hudson's extract of the seeds—the dose being ¼ of a

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grain, repeated every third or fourth hour during the day. In no instance was the dose raised above half a grain." The author describes several cases in which the medicine had been given with the best results. He instances the case of a lady of delicate habits, who was seized with a violent pain in the occiput, followed by flashing of light, tinnitus aurium, and strong pulsations down the neck. The case continued for 19 days, and but little benefit derived from the treatment, which consisted in bleeding, brisk purgatives, cold to the head, etc. The temporral artery was twice opened, and twenty-four ounces of blood drawn off. Sometimes the pain would be in the neck, at other times along the whole spine. At times complaining of most painful feelings of anxiety about the chest. Suffered at times from pain in the back of the thigh and leg, extending to the loins and back, attended with frequent slight convulsions of the limbs. By the 15th day from the attack, the symptoms had gradually subsided, and there was reason to hope that the disease had run its course. Cold and large doses of opiates were the only remedies from which the patient derived advantage. Soon the complaint returned with all its pristine violence, and the usual remedies failed entirely of success. On the 4th day from its last return, the extract of stramonium was first tried, in doses of ¼ of a grain, repeated every three hours. The first day's administration brought no relief. It was then increased to one-third of a grain, and benefit was soon derived from this plan. The patient however, was obliged to be kept under the influence of the medicine for a fortnight longer, when all symptoms of the complaint were entirely gone, and did not return. This case is interesting as it illustrates the powers of stramonium.

Case 2.—"W. Balcarras, aged 14, Aug. 1, 1821, has complained for several days of stiffness and rigidity of the lower extremities, without any assignable cause. These increased, and presently the abdomen became hard and rigid—then the muscles of the neck, back, and jaw—in short, in a few days, he exhibited a well marked example of opisthotonos. Bleeding, purging, calomel, opium, and the warm bath, were employed with some relief, but only temporary. The symptoms increased, and on the 6th day were at their acmé, the patient resting almost on the occiput and heels, unable to perform the slightest motion for himself, the jaws nearly shut, and fixed immovably, abdomen as hard as a board, the extremi-

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ties rigid. Very active measures were resorted to, as bleeding, blistering, sinapisms, opium, calomel, etc,, and about the 9th, the symptoms seemed to yield. On the 10th they returned, nearly as bad as ever, with the exception of the trismus, which was, in some measure abated. The stramonium was now given in doses of ¼ of a grain, three times a day; at first with no apparent benefit; but afterwards, when the dose was increased to one-third of a grain, and more frequently repeated, advantage was evidently gained. The disease, however, continued several weeks, but he ultimately recovered in about two months."

On page 493, of the same review, is related a case of sciatica in a young man, where all the usual remedies proved unavailing. The stramonium was effectual in a few days.

Dr. DAY alludes, (in the Medico-chirurgical review of 1849, p. 492,) favorably to the calmative effect of stramonium in the treatment of asthma.

In the Boston Medical and Surgical Journal, Vol. 56, p. 148, Dr. R. H. SALTER has a valuable communication, which was read before the Boston Society for medical improvement, March 9th, 1859. The subject was stramonium in puerperal convulsions. The author gives an account of six cases of puerperal convulsions, all successfully treated with stramonium. Some of the cases were apparently beyond the reach of help, yet by this agent restored.

I will cite case 4th in the words of the writer: "P. D. C., aged 20 years; first pregnancy; had been six months married, and was at the eighth month of gestation. She was rather short, robust, of a thick-set form, full habit, and of sanguine temperament. Nov. 16th, 1860, had slight uterine hæmorrhage, which continued moderately about one week. On the evening of Nov. 28th, having returned to the city after an absence of two days, I found an urgent summons to visit this lady. On arriving at the house, I was informed by a physician in attendance, that she had been in convulsions about thirty-six hours; had been bled to the extent of between four and five pounds, and that she was getting worse every hour, the convulsions quite as violent and more frequent; the intervals at this time varying only from ten to fifteen minutes. The physician, exhausted by his previous attendance, left the patient entirely to my care. She was the most deplorable and pitiable object I ever beheld. Her face was terribly swollen and livid,

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the tongue protruding from between the teeth, swollen and dreadfully lacerated, and bloody froth pouring from her mouth; respiration deep, labored and stertorous; the pupils of the eyes, as well as I could judge, preternaturally contracted; the pulse thready, weak, and so rapid as not to be counted; total inability to swallow, together with complete stupor or entire unconsciousness. In such a state of things one might well despair. Before the messenger returned from the druggist's she had two convulsions. They were of an epileptic character, and extremely violent. There was no certain sign of labor having commenced. The os uteri was quite closed, though the cervix was obliterated, and the uterus itself had subsided considerably into the pelvic cavity. As the patient, was unable to swallow, ten drams of the tincture of stramonium were administered by enema. She had one convulsion within five minutes after the injection, and this was the last. In twenty-five minutes the pupils of the eyes were partially dilated, and within an hour the patient was comparatively quiet. Directions were given to administer diluted wine or brandy and liquid nourishment, beef tea, gruel, etc., as soon as she could swallow. She recovered rapidly and fully, but had no recollection of anything that transpired from the commencement of her illness.

CASE 6th.—Miss J. M., aged 19 years; first pregnancy; unmarried; rather short, stout, of thick-set form and robust constitution; was taken in labor, at full time, 10 o'clock, P. M., June 20th, 1854. Labor progressed favorably and naturally for fifteen hours, when, at the time the head was passing the superior strait, she was seized with violent convulsions of the common sort. Uterine action was not entirely suspended, but with nearly every return of pain a fresh convulsion occurred. Half an ounce of the tincture of stramonium was administered in conjunction with ergot. One fit occurred within ten minutes after the medicine was given. There were no more fits until after delivery, which was accomplished at about 4 o'clock, P. M., of the 21st; the child living. The mother remained quiet and in a state of partial coma about four hours, when she was again seized with convulsions. Finding that the pupils of the eyes presented almost their normal size on exposure to light, I administered five drams of the tincture of stramonium. She had another fit soon after the medicine was given, and this was the last. Both mother and child did well." The author cites

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other cases to show that the stramonium is as promptly effectual for the relief of the simple forms of convulsions, as for those complicated with the puerperal state. He cites two or three interesting cases in proof. In closing his remarks upon puerperal convulsions, he states as follows:—"I consider the tincture of stramonium, properly administered, when there are no contra-indicating circumstances, as a *sine qua non* for the speediest, safest and most uniformly successful relief of puerperal convulsions." There is no room for doubt, relative to the effect of this drug, in controlling convulsions, whether puerperal, epileptic, hysterical, etc. For years the author has been in the practice of administering stramonium to epileptic patients, and with few exceptions successfully. The dilatation of the pupil of the eye is a good test that the system is brought under its influence. Often it becomes necessary to keep the system under its influence during several days. No beneficial results are to be expected from its administration, unless you give it in sufficient doses to dilate the pupils.

In Braithwaite's Retrospect, part 18, p. 300, may be found an article on stramonium as an emmenogogue, by Dr. B. JONES, Missouri. Dr. Jones believes that stramonium is a real emmenagogue, and that it is the only one we have. In illustration of its use, he gives the following case:—A lady had suppressed menses after an attack of fever, and not withstanding the use of all kinds of medicines, the suppression continued. At the end of four years she came under the care of Dr. Jones, who prescribed in the first instance a purgative. He says, "after the operation of the pills, I put her on the tincture of stramonium seeds. I directed her to take twenty drops, three times a day, for the first day, adding a drop to the dose each day, and so continue it, either until it produces dizziness, vertigo, or the catamenia. In ten days after I first saw her, I was summoned to her again, and learned that the day previous she had commenced evacuating blood from the bowels, in small quantities and at irregular intervals. I gave it as my opinion, that this was a vicarious evacuation, and the harbinger of a regular catamenia *per via naturales*, and directed her to suspend the medicine for two weeks, and then resume it again in the same dose last taken, to be increased as before directed, and to report to me in two weeks thereafter. At the expiration of the two weeks from the resumption of the medicine, she reported a regular

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and plentiful catamenia. From this time she was perfectly regular, until she became pregnant, and in due course of time was delivered of a healthy child. She entirely regained her health, and has subsequently borne two children.

The British Medical Journal, Aug. 18, 1860, p. 659, has an article on the use of stramonium in hay-asthma, by Dr. LAWFORD. He remarks, that smoking the herb is the plan generally recommended, and in those who are easily brought under its influence this plan is, doubtless, occasionally of considerable service; but with the majority, little or no effect is produced by this mode of procedure. True, smoking, if long continued, may produce nausea and slight narcotism; but the paroxysm is urgent, and immediate relief is required. Under these circumstances, I have been in the habit of directing the patient to introduce portions of the stem and leaf of the plant into his pipe, as before, to smoke it, and inject the smoke thus obtained from the mouth into an inverted ale-glass; to continue this procedure until the glass is filled with the stramonium fumes, and then to place the glass (still inverted) over the mouth, and take one long and deep inspiration. The effect is instantaneous, a sense of suffocation for the moment, then copious expectoration of ropy mucus, and immediate relief.

Stramonium, in addition to its antispasmodic and narcotic properties is a direct, powerful, and instantaneous expectorant, if properly applied, and in this consists its peculiar value in this distressing complaint; and in order to effect this object, it must be brought into absolute contact with the air cells of the lungs; simple imbibition through the mucous membrane of the mouth will not bring out its powerful expectorant properties, and hence those who have looked for benefit from smoking the drug simply, have been greviously disappointed, and have pronounced it valueless. In the same part, p. 309, is an interesting article on opium as a remedy in poisoning by stramonium, taken from the Edinburg Medical Journal, June 1860, p. 1100.

From the Medical Repository, Vol. 5th, p. 84 (published 1802): "The following instance of the efficacy of Datura stramonium was communicated by A. J. DEROSSET, M. D. of Wilmington (North Carolina), to Dr. Miller." The author proceeds as follows:—

"A gentleman, aged thirty-six years, of a very athletic make, (the full account of the case may be interesting, on acconnt of the

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date of the communication) who had been in habits of intemperance, with respect to the use of spiritous liquors, for some years, and had, in consequence thereof, been subject to occasional attacks of convulsions, was seized, about the 8th or 9th of May, with a fever, accompanied with frequent bilious vomitings, which so far yielded to the use of the usual remedies, that he was able, though weak, to attend to the affairs of his farm by the 12th. On the 15th of the same month, I was requested to visit him, on account of a species of mental derangement, with which he had been attacked the day before. The account given me, was, that he had not, during the last fortnight, indulged in any excesses; that, about dinner time, on the 4th, after having slept badly the night before, he often imagined that he saw people coming towards his house, and would frequently mistake one object for another, while at the same time he seemed sensible of these perceptions being erroneous; he nevertheless ate a hearty dinner; after which his symptoms increased, and by evening were so violent that he stripped himself naked, and ran into the woods, showing every mark of the utmost terror; nor would he suffer any person to approach him. About twelve o'clock, the night being extremely dark, his attendants lost sight of him at the edge of a swamp into which he ran. In this situation I saw him. He spoke incessantly of the persons from whom he thought he had received ill treatment. His eyes were quite suffused with blood; the countenance very pale; pulse small, though not much quickened. With some difficulty he was prevailed on to go to bed. The decoction of the seeds of the Datura stramonium, prepared as recommended by Dr. KING, in the second volume of your Repository, was prescribed, and repeated every ten minutes, till he fell asleep, which was when about fourteen drams had been taken. He slept for several hours, and awakened much refreshed; his mind, however, continued in a small degree deranged, but was quite restored by a continuance of the medicine at longer intervals. He is now in the full enjoyment of all the faculties of his mind. No other medicine was given."

In Braithwaite's, part 13, p. 174, stramonium is favorably spoken of as a remedy for asthma and other disorders of the chest. Mr. BUTLER, of Covent Garden, has recently introduced cigars composed of the leaves of this plant, and patients who have tried them, testify to their efficiency; they derive more benefit, than

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when used in a pipe. In France, not only stramonium but several other medicinal plants are used in the form of cigars; and many patients have derived advantage from their use.—(*Dublin Med. Press, Apr.* 29, 1846, *p.* 264.)

Some authors reccommend an ointment of stramonium, for the cure of scabies.

Dr. TULLY prescribed this agent for the cure of epilepsy, with more confidence of success than any other medicinal article in the materia medica. He would have that class of patients continue its use for months after the paroxysms are suspended, as a prophylactic. It should be given in this complaint with freedom, and the pupils kept dilated for months. If kept dilated for a year, they would return to their normal condition by discontinuing the use of the medicine. The effect upon the pupil should be the test, or indication, that the system is brought under its influence.

Many patients require some preparation of iron in the treatment of epilepsy, and this may be administered in conjunction with datura. It may sometimes be necessary to combine it with small doses of opium. By many physicians this agent is regarded as most efficient in the treatment and cure of chorea. It may sometimes be necessary in this troublesome complaint to combine purgatives with it; at other times, to give it in conjunction, with iron, oxide of zinc, opium, cannabis, cimicifuga, argenti nitras, etc. No one medicine, however, will be found equal to stramonium for the successful treatment of this malady.

Hysteria may be perfectly controlled by the liberal use of this drug.

Dr. CHAPMAN regarded stramonium as useful in phthisis. As a pure narcotic, it will allay pulmonary irritation, and hence may be of service in this disease.

JOSEPH MILLER says that the bruised leaves applied topically, in all kinds of inflammation, are good. The bruised leaves are highly recommended for inflammation of the female breast; also as a topical application in arthritis podagra.

Sciatica has many times been entirely cured by a free use of datura. Many physicians use it in preferance to any other remedy in neuralgia. Frequently a combination of narcotics does better in this complaint, than any one alone. Datura has been employed in tetanus, yet not with such freedom as it ought to be given;

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nevertheless many favorable accounts are recorded of its utility. It is supposed to have considerable effect in the treatment of rabies. In this malady it should be given in large doses; if a tinct. of the seeds be given, from one to two drams should be administered. The symptoms to which this agent may give rise, when the dose is too often repeated, or too large, should be well understood by those who use it. It might be presumed that every regularly educated physician understood it, but such is not the fact.

Some years ago I was called to treat a patient for cephalalgia; I gave him tinct. of stramonium seeds, 10 drops at a dose, with directions to repeat it every three hours. In about twenty-four hours I visited my patient again, and found the family much alarmed; they considered their son had inflammation of the brain, and as he had grown worse rapidly, his death was predicted by all who saw him. I told them that there was no reason why they should be alarmed, as it was the effect of his medicine, and he had not taken enough to be in any danger, and that in two or three days I presumed he would be able to walk out, and that in all probability his disease would be cured. I discontinued the use of the medicine, and was to visit him the next morning. Soon after I reached home a messenger came to inform me that they had sent for Dr. ——, who lived in an adjoining town, a physician of many years experience, and I must meet him in consultation. The sage counselor arrived and examined the patient, and pronounced him passed all hope of recovery. He had no doubt but that the patient had inflammation of the brain, and that scrons effusion had taken place as its result. The patient was talking incoherently, and almost incessantly, pupils dilated, the sight confused, face flushed and swollen, etc. I questioned the Dr. relative to his experience in the use of stramonium, and became satisfied that he knew nothing of the symptoms resulting from large doses. We differed in diagnosis, as well as in prognosis. He was confident that the patient would die within eight and forty hours; his recovery however was within that time; and the disease, which had been quite harassing, entirely subdued. We have instances on record where the effects of an overdose of stramonium have continued ten or twelve days.

BEVERLY says that the soldiers at Jamestown, to which illusion has been made, remained under the influence of this drug eleven

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days, not remembering anything that had passed. Among the anomalous symptoms of poisoning by stramonium, is one observed in the case of a man to whom all black objects appeared green. In relation to overdoses of datura, Dr. STILLE remarks, "at no period in the progress of the symptoms, until death grows imminent, is their the least tendency to sleep; on the contrary, there is obstinate insomnia, and yet, on the recovery of the patient, he retains no distinct recollection of what has occurred.

SCHROFF and WERTHEIN arrived at the conclusion that datura is of about twice the strength of atropia. REIL remarks that it is singular that their strength should be so unequal, while they are identical in composition.

Antidotes.—The same as for belladonna; which consists in evacuants and stimulants as prescribed for poisoning by opium.

Remedial Employment.—STÖRCK reports the cure of two cases of insanity, with this agent, both of which were of long standing, and one of them complicated with an organic disease, hydatids of the brain. Drs. DURANDE, BERGIUS, GREDING, SCHNEIDER, and BERNARD, have also published examples of its success. AMELUNG regarded datura as a valuable remedy in acute mania, subsequent to depletion, and other antiphlogistic measures. He also considered it useful in shortening the paroxysms of periodical insanity, and in tempering the violence of the more permanent forms. The late Prof. BARTON attributed to this agent the recovery of an insane patient, and Dr. EBERLE declares that in a case of hysterical mania it afforded unequivocal relief.—(STILLE.)

Dr. CHAPMAN regards this medicine as more efficacious in melancholia than in any other form of mental derangement. The late superintendent of the Massachusetts Lunatic Hospital, Dr. WOODWARD, regarded stramonium as of essential service in the treatment of insanity connected with epilepsy. He remarks, "I have seen excellent effects from this remedy." The symptoms of both are often greatly diminished in force and frequency.

Dr. KING of Suffield, Connecticut, has reported two cases which he regarded as meningitis, and the cure of which was evidently due to stramonium. (I copy this account from STILLE, Vol. 2, p. 58.) One of the cases was that of a lad about fourteen years of age. There was delirium with phantasms on the third day; on the fifth, convulsive twitchings, coldness of the hands and feet, and

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largely dilated pupils. At this stage a decoction was made with half an ounce of stramonium seeds in four ounces of water, boiled down one-half, and a teaspoonful of it given every half hour. The following night the patient slept about fifty minutes, and his delirium was less violent. The medicine was continued in more frequent doses, and on the seventh day from the invasion of the disease, the fever and delirium had much abated, and urine was copiously discharged. On the eighth day the patient was calm and composed, after a quiet night's rest, and so recovered.—(STILLE.)

Epilepsy.—Dr. ARCHER, of Maryland, celebrated (says STILLE), the virtues of stramonium in epilepsy more than half a century ago, and pointed out more distinctly than others have done, the class of cases in which it is most efficacious. These are, according to his experience, when the fits occur at short intervals, and periodically, and, therefore, afford time for bringing the patient under the narcotic influence before the commencement of another paroxysm. When the intervals were of irregular length, Dr. ARCHER found the treatment less successful. Dr. WOODWARD, previously cited, ascribes to this agent very decided curative powers in epilepsy. "In many cases," he remaks, "in which the paroxysms of epilepsy have recurred frequently, they have, for months, been wholly suspended by the use of the tincture of stramonium. This remedy rarely makes any favorable impression unless it is used in sufficient doses to dilate the pupils of the eye slightly, and produce some difficulty of vision more or less of the time." Dr. TULLY, previously quoted, regarded this remedy as more effectual than any other in the cure of epilepsy. The author has, during twenty-five years of practice, depended more upon stramonium for the cure of epilepsy than all other agents combined.

Spasmodic Asthma.—Dr. BIGELOW says that "it would not be difficult to designate a dozen individuals in Boston and its vicinity, who are in the habit of employing stramonium with unfailing relief in the paroxysms of this distressing complaint." Pages might be written, showing the utility of this drug, in the treatment of asthma; and scores of names of physicians in this country and Europe might be cited, as recommending its use.

Abortion.—JOHN KING, M. D., says in his American Eclectic Dispensatory, p. 432, "it is said that the seeds exert an influence

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to prevent abortion, superior to anything else, seven seeds to be given at first, after which one every hour, as may be required."

Dysmenorrhœa.—According to EBERLY, by exhibiting from twenty to thirty drops of the officinal tincture three times daily, for two or three days immediately preceding the period of the menses, the distressing pain attending this affection will, in some instances, be entirely prevented. In one case it effected a perfect cure. Dr. A. T. THOMSON found half-grain doses of the extract extremely useful in the same affection, in combination with Plummer's pill and digitalis.

Retention of Urine.—If it depend upon inflammation about the neck of the bladder, it may sometimes be overcome without catheterism, by cataplasms of the bruised leaves of stramonium, or the extract of this article applied in any manner with moist heat. Dr. KING says, that he has in many instances applied a poultice of the fresh leaves, bruised, or the dried leaves in hot water, to the perineum, in cases of retention of urine from enlarged prostate, where it was impossible to introduce a catheter, and after having allowed them to remain for about half an hour, has been enabled to pass the catheter with ease and facility, and thus afford relief to the patient. He adds, "I have met with similar good results in urethral stricture."

Rheumatism.—Dr. KING regards this article as good in the treatment of rheumatism. Many authors might be cited if necessary in confirmation of its efficacy in this complaint. Liniments and ointments containing the tincture or extract of stramonium may be employed in friction upon the affected part, as well as its bruised leaves, either in their fresh state, or stewed with lard.

M. M. LEBERTON prescribes this agent in acute articular rheumatism, so as to maintain for several days its decided influence. M. TROUSSEAU declares that he has derived advantages from it which none other appeared capable of affording. Similar good effects have been obtained by CHOMEL.

Dr. STILLE remarks, that "there is no reason why, in external applications at least, stramonium and its preparations should not take the place of more expensive and often less pure narcotics, in the treatment of every kind of painful affection. So common and at the same time so powerful an agent, deserves more attention

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from American physicians than it has hitherto received, and of which any published evidence is to be found."

Hæmorrhoids.—Among the local uses of stramonium, none excels in imparting comfort so much as its employment in piles, and other kindred affections of the rectum: An ointment composed of the extract of stramonium and lead cerate in equal parts is an almost infallible remedy for the intolerable itching and burning which piles, vermicular ascarides, etc., occasion; it forms also a very soothing application in fissures of the anus.—(STILLE.)

Administration.—STILLE says "the powdered leaves, root, and seeds of stramonium may be given in substance. Of the two former the dose is about two grains, and of the last, one grain, to be repeated several times a day until the characteristic symptoms produced by the drug begin to manifest themselves. Of the officinal extract of the leaves, one grain, and of the tincture, fifteen minims, are the average doses. The tincture is one of the best forms of the medicine, and can be used for nearly every purpose to which the other preparations are adapted." The fluid extract is a very convenient and reliable preparation, and has greater strength than the tincture, consequently the dose is less.

Digitalis in Delirium Tremens.

By Dr. ROBERT DUCHESNE, London.

[The following case is interesting, as the treatment of delirium tremens by digitalis is still *sub judice*. It tends to point to those cases in which it may be expected to prove especially useful.]

W. A. H., aged 35, of small stature; in good condition of body; fair; of excitable temperament; a small draper or tallyman; of sober habits. Has for the past week taken more spirits than usual, and on December 25th indulged very freely, eating almost nothing. First seen on the 28th of December; usual symptoms.

Treatment.—Opium and chloric ether; then morphia, commencing with a quarter of a grain and increased at last to one grain every four hours, with three ounces of whiskey—the *fons et origo mali*—and one pint of beer, with milk and beef-tea, up to January 3rd, the day on which I saw him. His condition was this:—Pulse 84, soft and full; secretions arrested; pupils contracted; head hot and heavy, dull pain suboccipitally; skin perspiring very freely. Slept three hours last night, three this morning, and has had sleep

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during the treatment. He had nausea, felt muddled, and in fact was narcotized; the delirium persits. To discontinue the morphia, and take effervescing ammonia mixture with Scheele's acid. 11 p. m. Has passed urine, but continues very restless and rambling; has taken his milk and beef-tea, with some whiskey and beer. To take at 3 a. m., ℥ss. tinct. digitalis, aquæ ad ℥jss; spirit lotion to head.

4th, 8 a. m. Patient would only take half the draught; no effect. To repeat the draught. 2 p. m. Slept from 9.30 a. m. to 1.30 p. m. Took some beef-tea, and is now asleep. To take ʒij. tinct. digitalis, aquæ ʒvj. every six hours; milk and beef-tea; beer, no whiskey. 10 p. m. Still asleep; two doses taken.

5th, 9 a. m. Asleep. Woke up at 8, and had some toast and coffee with milk. 9 p. m. Has slept the greater part of the day: has eaten three mutton chops; no more medicine taken, but bowels have been very freely relieved both yesterday and to-day; urine normal; no delusions; is convalescent.

On the following day I put him on citrate of iron and quinine, with nux vomica, and I am about now to take my leave.

It will be remarked that this was a primary attack, occurring in a young man of tolerably regular habits, although of weak constitution and nervous temperament: that the worst day of the attack was that on which the effects of morphia had become fully developed, and that the effect of the digitalis was most marked and rapid, the pulse becoming firmer, the sweats ceasing, and most comfortable somnolency being immediately induced. It had also an equally-marked action on the intestinal canal. In all, one ounce of the tincture was taken.—*Med. Times and Gazette, Feb.* 1, 1862, *p.* 120; *Braithwaite's Retrospect.*

Observations on the Effect of the Preparations of Iron.

TRANSLATED FROM THE GERMAN

By D. S. Gans, M. D., Cincinnati, Ohio.

Dr. Pakrowsky, of St. Petersburgh, had opportunity to observe several patients in the hospital there, who for various diseases took iron; and he directed his particular attention to the effect of that remedy on the tissue-change. To that end he measured daily in all the patients the temperature of the body, the quantity of the consumed food, the quantity of the excrements; of the urine, the specific gravity of the same, and the quantity of the chlorides and urea in the same.

After giving the histories of the cases, he comes to the following conclusions:

1. The temperature of the body is positively heightened by the use of these preparations.

2. This increase results in some cases very soon; in one case it occurred

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after five hours; in others slower, and in one case after a long interval and after a large dose.

3. The temperature, the morbidly lowered as well as normal one, is increased; and if it ceases to rise after reaching a certain height, having taken a certain quantity of the iron, the temperature will rise more by increase of the dose.

4. Several days after using it the pulse rises also, although not in all cases.

5. Very soon, and consequent upon the increase of the temperature, the daily amount of urea in the urine increases.

6. The use of iron increases the weight of the body.

7. Every preparation of iron produces the same effect, and a change in the different preparations in the same patient does not alter the result.

8. The diuretic effect of citrate of iron was very distinct in two cases, but was wanting in three under the same conditions.

9. In all cases where iron was used no constipation of the bowels took place, except a slight one after iodide and lactate of iron. It was borne well, and in large doses, by the digestive apparatus (nine grains pyrophosphate of iron, and fifteen grains ferrum hydragenio reductum).

10. Dropsical transudations in the subcutaneous cellular tissue were resorbed by the use of iron, even in patients with insufficiency of the mitral valve, and reappeared after stopping with the remedy.

11. The increase of the heart's impulse and the dyspnœa in patients with organic cardiac diseases disappeared even in cases in which digitalis had done nothing.

12. After the normal temperature of the body had been raised by the use of iron, it lasted a considerable time after stopping with its use before returning to its normal condition; whilst the morbid lowered temperature rose quickly by the use of iron, it fell just as quickly by stopping with its use—at least, where the other pathological symptoms continued, and where consequently the cause of the low temperature was not cured.

Referring to these facts, the Doctor lays down the following maxims: Taking into consideration that the temperature of the body and the quantity of urea in the urine is increased by the use of iron, that the œdematus condition disappears and the weight of the body is augmented, we are fully justified in ascribing to the iron a nutritive power. The increase of temperature indicates a stronger tissue-change, for this is constant, and accompanied by other symptoms indicating a heightened nutrition. How this is brought about it is difficult to say. Increase of the blood quantum or of the blood corpuscules can not be the cause; both increase very slowly, whilst the change of tissue augments very quickly. Neither can the increase of the pulse explain the elevated temperature, as the first succeeds the latter. The respiration is not altered by the iron, hence can not have an influence upon the temperature.

According to Dr. Pakrowsky, we have, therefore, to look for the effect of iron in the finest arterial and capillary system, one of the most important places of nutrition, and the growth of the tissue and organs, and so much more, as the disappearance of dropsical transudations in the subcutaneous cel-

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lular tissue after the use of iron, points to that system. The most probable is the supposition that the iron acts upon the contractile elements of the finest arterial branches, which must have, without doubt, a high and important influence upon the capillary circulation, and, namely, upon the degree of the tonics, *i. e.*, the degree of tension of the walls of these ramifications. The iron must consequently alter the conditions of the diffusion of the elements composing the tissue and organs. Only in this way does it seem possible to explain the quick effect of iron upon nutrition and the resorption and the œdematous transudations.—*Virchow's Archiv*, xxii., 1861; *Cincinnati Lancet and Observer.*

On the Treatment of Tubercular Hemoptysis.

By Dr. William Brinton, Physician to St. Thomas's Hospital.

Of course pulmonary hemorrhage has the usual long list of specifics, each of which, in the eyes of its partizans, is so efficacious that one can hardly avoid wondering anybody should be so foolish as to die of hemoptysis at all. Alum, turpentine, mercury, the mineral acids, acetate of lead, sulphate of copper, tanic acid and a host of analogous astringents, ipecacuanha, tartar emetic, the external application of ice, figure amongst the favorite remedies of this kind. The variations of diet have been scarcely less striking than those of drugs; the patient who would have been nearly starved twenty years ago to favor coagulation of the blood in the ruptured vessels, being now sometimes crammed with food, and drenched with stimulants, at frequent intervals, in order to "keep up his strength."

Warned by such discrepancies, I think we are justified in regarding as inconclusive what are often termed the "teachings of experience"—namely, the mere events which follow the adoption of this or that drug or dietary in the treatment of the malady. Here, as elsewhere in the study of therapeutics, it is our first duty to check the uncertainty or bias which must sometimes beset the conclusions of the most judicial intellect, by a study of the nature and history of the disease, and by the physiological action of the remedy. What *is* hemoptysis, on the one hand? What does the particular drug do to the healthy body, on the other? Unless we can at least partially answer the first question, it is difficult to see how we can conclude any remedy really useful. Unless you can answer the second, and point to at least an analogy between the effects of the drug in health and in disease, it is nothing short of a very complete and large account of the natural course of the malady that would enable us to accept any recovery as a cure. True it is that quinine cures most forms of ague, and mercury some forms of syphilis, by agencies which are quite inexplicable from the mere physiological effects of either drug respectively. But here our knowledge of the course of the two maladies, unmodified by their respective specifics, proves the reality of the

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cure. It is not so much a multiplication of coincidences, as an asseveration of cause and effect, which is thus afforded us.

Looking back to the variations of hemoptysis already alluded to, and eliminating the casual bleedings of pleurisy, and the more essential, but dilute, hemorrhages of pneumonia, you will remember that we noticed the hemoptysis of pulmonary tubercle as presenting itself in three forms of very different frequency and gravity. The afflux, or active congestion, of the first stage of tubercular deposit, and the obstruction and erosion in the second stage, affect chiefly the smaller vessels of the diseased organ. The large ulceration of the third stage occasionally lays open a blood-vessel of considerable magnitude. The first two are of frequent occurrence; indeed, the second is, in greater or less extent, almost a necessary incident of the malady. The latter is fortunately rare.

Now, of these two commoner varieties of tubercular hemoptysis, it may be unhesitatingly affirmed, that in a very large per-centage of their cases the bleeding would cease spontaneously. Indeed, inquiry amongst the poorer classes who form the out-patients of our hospitals shows that hemorrhage of this kind commonly ceases in a day or two: not only without medical advice, but often in defiance of the want of that perfect rest and unstimulating diet which, apart from drugs, constitute the best means of favoring its arrest. And I need hardly say that, in such a process, Nature is only stanching an internal bleeding by the same means which she ordinarily employs to arrest an external one; means which, though in the case of these pulmonary vessels they have to fight against additional obstacles in the shape of the alternate suction and compression of breathing, and the agitation of cardiac movement, are yet in the main sufficient.

Hence to assert that these frequent and scanty hemorrhages generally cease after the administration of any of the above drugs is to state a fact which, the moment it is made to sustain an assertion of their specific operancy as stiptics, may be challenged as an instance of the fallacy "*post hoc, ergo propter hoc;*" for the fact is utterly insufficient to sustain any such conclusion. The bleeding may have ceased spontaneously; a recovery which, supposing the instincts of the patient have been allowed full play in the matter of rest and diet, is even additionally explicable. Strictly speaking, the mere coincidence scarcely entitles us to affirm more of stiptic power in the drug than if the bloodvessels concerned had been those of a cut finger.

In all cases of hemoptysis, the first indication of treatment is suggested by the pathology of these, and indeed most other, morbid hemorrhages. That the bleeding is generally preceded and accompanied by great congestion of the bloodvessels nearest the lesion is a fact about which there can be no doubt whatever. And that the removal of this condition can often be effected by smart aperients is another fact which may be as unhesitatingly asserted. Nowhere are these statements better verified than in the digestive canal; where, for example, you may sometimes see in the submucous areolar tissue that the nodule of deposit which has excited a copious hemorrhage, is surrounded by

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an inch or two of deep velvety congestion with a well-defined margin towards the neighboring healthy structures; and where the virtues of drastic purgatives in melæna constitute an experience as old as the days of Hippocrates. And of all purgatives which one may give with this purpose, the old-fashioned dose of blue-pill or calomel, followed by a black draught, seems really the quickest and most efficacious. Under all ordinary circumstances its administration, and, if needful, repetition, should be a prominent feature of the treatment.

Then as to the drugs for checking hemorrhage, by their astringency or otherwise. There seems to be a kind of notion in the minds of some therapeutical writers, that such drugs as turpentine, alum, gallic acid, acetate of lead, sesquichloride of iron, &c. &c., when taken into the stomach, are received into the blood in quantities sufficient to communicate to this fluid those styptic properties which they undoubtedly possess when applied to an external wound, or to a bleeding stomach, or perhaps (through the urine) to a bleeding bladder. But I know of nothing to confirm such a notion. And I think that those who would look the facts of therapeutics sturdily in the face (which, not wishing to die a homœopath, I intend to do), would scarcely think twice about the matter. At any rate experiment would soon afford some analogical answer. Stir up ten grains of gallic acid, or ten minims of tincture of sesquichloride of iron, in ten or twenty pints of blood, and I think the resulting solution would be a styptic of a somewhat Hahnemannic degree of diluteness; not nearly so potent, one may anticipate, as the compound tincture of benzoin which, forty years ago, was the favorite application of some old-fashioned country surgeons to stanch the bleeding of a superficial wound, and which, in its turn, modern surgeons have practically superseded by a little patience and cold water.

Of other remedies for hemoptysis one may speak more respectfully, though with some qualifications. Ice, for example, seems occasionally of service. But the internal congestion, invariably produced by great external cold, suggests that, save where the source of the hemorrhage is near enough to the surface to be directly affected by it, its benefits may be more than questionable. And of ipecacuanha, which many excellent authorities think highly of, in small and frequent doses, (a grain every ten or fifteen minutes,) I can only say that I have known its use followed by great exhaustion and nausea, and a very protracted convalescence, but, (what is more to the purpose,) that over and over again I have known it utterly fail in any degree to moderate such a hemorrhage.

In short, all else that I have to say of such remedies might almost be summed up in the statement, that it is in the terrible hemorrhage of larger eroded vessels, and therefore of what is often advanced phthisis, that we have the most searching test of the value of any drug of this kind. Presuming we have such a means, we must very frequently use it; for it is often impossible to tell beforehand whether a slight oozing is not the commencement of a more considerable hemorrhage, such as (directly or indirectly) endangers life. And I believe that we have such a remedy, for the majority of patients, in *digitalis*.

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The grounds for the strong personal conviction I find chiefly in the fact, that I have repeatedly seen profuse and alarming hemoptysis, which had resisted many other means of treatment, including a most judicious diet, and all the other drugs above enumerated, yield to this active remedy, given so as to produce its well known specific effects on the pulse. And not only so, but, in several cases, the interruption of the drug seems to have permitted the return of the hemorrhage, to be again arrested by the resumption of the digitalis. Our patient in bed No, 9, of Jacob's ward, so far illustrates this point as that, thrice over, the gradual disuse of the digitalis, at intervals of two and three weeks from the previous cessation of the hemoptysis under the use of the drug, has been followed by fresh attacks. And the very same physiological effects which confirm the efficacy of digitalis may suggest the details and qualifications of its use. Pray remember that it is too much of an edged tool to be carelessly handled; and hence that, if you cannot or will not take the trouble to watch over its administration, you had best not give it at all. From thirty to ninety minims of the officinal tincture daily, in four or six doses, is as much as is generally requisite; and, (as has been pointed out by Sir Henry Holland, in that chapter of his classical work devoted to the consideration of this drug,) it is often not the robust, strong man who bears or demands the largest dose. Keep the patient quiet, and in the recumbent posture—an attitude for which the drug is a double argument in this malady. Judge, by repeated enquiry, how far, or how quickly, the digitalis is acting on the pulse; and, as a rule, reduce the dose as soon as the pulse has dropped to the slow rate, (30 to 50 or 60 per minute,) which is the usual result of its action both in health and in disease. Lastly, for those who like polypharmacy, the drug combines well enough with dilute sulphuric acid during the attack, and with sesquichloride of iron during the convalescence, without substantial detriment to its own much greater virtues.—*Lancet, Nov.* 30, 1861, *p.* 516; *Braithwaite's Retrospect.*

[From the American Medical Times.]

Foreign Correspondence.

By Prof. Chas. A. Lee.

London, June 7, 1862.

Among the multitude of interesting objects which are presenting themselves daily to my notice, and of which I should like to say something, I must select but a few, and those possessing the greatest novelty. Of this class, I may certainly include one instrument to which my attention has been called to-day, which is known by the name of *Spectroscope.* It is an improvement in Spectrum cameras, consisting in an entirely novel arrangement of the parts, so as to produce, in fact, a new instrument; I need not describe its peculiar construction at length, because it would not be intelligible to the reader without illustrative plates; I may, however, remark, that it consists essentially in a prism or prisms, held in a box or chamber, supported on a pedestal or stand;

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and to the front of this chamber is secured a tube, which is provided with a collimating lens or lenses at the end nearest the chamber, and at the furthest extremity is furnished with an arrangement by which a horizontal slit can be adjusted in width by means of a fine screw. The back of the box carries a small telescope, which has an adjustable eye-piece. The spectra of the various metals, etc., are obtained by the aid of a spirit lamp and blowpipe, or a gas burner, or what is better still a gas blowpipe. A portion of the matter or salt to be examined, either in the solid state or in solution, is placed on a small loop of platinum wire, which is fixed on a steady support, and the loop introduced into the blowpipe flame. If the telescope be now adjusted, the spectra present a most beautiful appearance, differing according to the substance undergoing analysis, soda giving its characteristic *yellow line;* lithia *crimson*, etc. etc. None of the bright lines produced by any one metal interfere in the least with those produced by any other; *so that in a mixture of several metallic salts, each ingredient can thus be easily detected.* Even the most minute trace may be recognized if mixed with the largest quantity of any other substance. The delicacy of this mode of testing is such, that $\frac{1}{18000000}$ part of a grain of soda can be easily detected. *Three new elements have already been discovered by this new mode of analysis.* Its great value in the detection of poisons is too obvious to need remark.

The price of the instrument is from twenty-five to fifty dollars, according to the size and power. It goes under the name of "*Cooke's Spectroscope.*"

At a Soirée of the "Royal College of Physicians" recently given to members of the Social Science Association, now in session, I saw some beautiful experiments with this instrument, which fully sustain all I have stated in regard to it. The exhibitions of the *laryngoscope*, also, by Prof. Czermak, showing the vocal cords, and whole inner surface of the larynx on himself, were very gratifying and satisfactory. I believe I remarked in a former letter, that *Rhinoscopy*, so called, has already furnished trustworthy contributions to the knowledge of the morbid anatomy of the larynx; and, in the hands of the inventor, been successfully applied in the treatment and cure of laryngeal affections, particularly of polypi; yet that it can hardly be expected to come into general use in the management of this class of diseases. There was an ingenious apparatus, also, exhibited for showing vibrations in mercury by electrolysis; specimens of microscopic writing somewhat bordering on the marvellous For example, the Lord's Prayer was written by Mr. Peters's machine in a circle, *the three-hundredth of an inch in diameter;* a square inch would contain 90,000 such rings, the area of each being about the hundred and fifteen thousandth of an inch, and, in writing of this size, the whole Bible and Testament might be written *seven times in a square inch.* The large binocular microscope of Powell and Lealand, which were exhibited, have been brought to great perfection; though I saw no mention made of the fact, that this is an American Invention. This arrangement adds about forty dollars to the cost of there largest acromatic microscopes. Specimens of submarine cables; of a substitute for India-rubber; of Wheatstone's Automatic Telegraph; splendid crystals of acetate of rosaniline; illustrations of polarized light; the numer-

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ous powerful microscopes and objects; glyceric films, illuminated with electric light; the spectrum of gases; the experiments to prove the evolution of heat on the freezing of water. These, and various other objects of scientific interest, contributed to the intellectual gratification of the members and their guests.

June 10.—On Friday last, "*The National Association for the Promotion of Social Science*," commenced its annual meeting in this city. This association, under the Presidency of Lord Brougham, has been in existence but a few years, but has already accomplished great good. Holding its annual meetings in the leading towns of the empire, and attended by the more intelligent and active of every class, it has widely spread a belief in the truths of social science, and stimulated inquiry into the facts on which these are founded. The society embraces in its curriculum of Social Science, Jurisprudence, Education, Crime and Reformation, Public Health, Social Economy, and Trade and International Law. Daily and evening sessions are held, at which papers are read and discussions maintained, in which any member can participate; these, with numerous soirées, visits to educational, reformatory, and industrial institutions, excursions by rail and steamboat, etc., are among the attractions held out to its resident and foreign members. I suppose that none of its departments has accomplished as much good as that of "*Public Health.*" I am informed that in every town which the association has visited, the meetings have had the effect of directing attention to the proper construction of houses; the state of the drainage; the supply of good water, and other matters of sanitary importance; and that, in every instance, active exertions have followed for the improvement of the civic health. It has everywhere found public opinion on the subject, apathetic; and everywhere has left it more active. The advocates of sanitary reform have been encouraged and stimulated in their laudable efforts; and municipal authorities have everywhere shown a willingness to profit by the facts set before them. Indeed, one of the most promising features of this department is the attempt it makes, and not unsuccessfully, to spread among the whole community the laws of life, and of the means of preventing disease. The British "Public Health Act" was owing to the influence of this society; also, the act for repressing the adulteration of food, as well as the system of registration of births, deaths, etc. The practice and results of quarantine were also investigated by this association in 1859, and the report of their committee on the subject was printed by the House of Commons. It has published much valuable information and evidence relating to the proper construction of hospitals, and the best plan of obtaining hospital statistics. These latter papers have been sent to every hospital in the kingdom, and much good has resulted in consequence. A "Ladies' Sanitary Society," affiliated to the institution, has also been formed, and rendered the most important services by its practicle exertions in the cause—by circulating cheap but admirably written pamphlets, explaining the law of health, and the consequences of their infraction, by procuring the delivery of popular lectures on the same subject by medical officers of health and other scientific men to numbers of the working classes; and by oral instruction by visitors to the poor under the

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supervision of the society. By these and other measures within the sphere of their operations, they are doing perhaps more to increase the sum of health in the community than any legislative or official interference could effect. For we must ever remember that an improvement which is effected for the health of the people from without is apt to be temporary in its nature, because it is accepted by them without any real faith in its efficacy; but one which results from a change in their own character and habits, founded on conviction of the good gained by the change, is placed beyond the accidents of legislative and official support, and is certain to endure. I send you some tables which I have been allowed to copy from papers presented to the "Health Department," whose meetings I have attended with much profit and gratification as a foreign member, which you are at liberty to publish if you find them suited to your pages.

LONDON, June, 14, 1862.

In my last letter, I gave some account of the "Social Congress," now in session in this city, and especially the "Health Department" of the association, whose meetings I have generally attended. Another body called "*Congres International de Bienfaisance*" has also been holding its sessions at the same time, and many of the subjects brought before it have relatad to sanitary service and public health. At its sitting yesterday, a paper was read, prepared by Miss Florence Nightingale, which deserves some attention. The subject was "*On Army Sanitary Administration and its Reform under the late Lord Herbert.*" From this paper it appears that the present improved sanitary condition of the army has been the result of the Crimean catastrophe. At that period, the death-rate in the British army from consumption and other diseases mainly occasioned by the troops breathing foul air, far exceeded the *total* death-rate among the civil population of corresponding age. "The Barrack and Hospital Improvement Commission" having been appointed in 1855, proceeded at once to improve the ventilation and warming of the barracks, without machinery of any kind. Under their auspices drainage was introduced, and cesspits abolished; the water supply extended; baths introduced into both hospitals and barracks; and the lavatory arrangements generally improved. Barrack kitchens have been completely remodelled; the cooking apparatus improved; gas introduced and made to assist in the circulation of fresh air; stables have been ventilated, and ashpits abolished. In accordance with the recommendation of the commission, more simple and healthy principles for the constructure of future barracks and hospitals, for insuring better drainage, more efficient ventilation, and more cubic space for sinks and wells will be adopted. These principles have already been carried out in the Mediterranean stations. The result of these general improvements in the sanitary condition of the army is, that the mortality has been reduced one half. A school for practical cookery has been established at Aldershott, for training regimental and hospital cooks. The second sub-commission was appointed for reorganizing the medical department, which up to that time made no provision for systematically caring for the soldier's health; in fact, it was only fitted to

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attend them when they came into the hospital, and not to prevent their being obliged to go there. The new code of regulations established by the commission has been entirely seccessful.

The *third Commission* was charged with organizing the army medical school at Chatham, for the instructing of army medical candidates, of which I gave an extended account in a former letter. This was opened in 1860 by Lord Herbert, and has since been working in the most satisfactory manner, and there can be no doubt that the instruction there imparted, is one of the causes of the diminished death-rate.

The *fourth Sub-Commission* was charged with organizing the army medical statistics, which were then very imperfect and incomplete; whereas, now, the exact state of health of the men in each regiment can be ascertained at once. Another great sanitary reform was affected in the improvement of the purveying department, which had broken down so thoroughly in former wars, its defects being visited chiefly on the sick and wounded, for whose benefit it was established. Lord Herbert, in 1861, issued a new purveying code of regulations, which have been tried in foreign service, and have been found to fully answer every purpose which they were intended to fulfil. He also organized and trained army hospital corps to nurse the sick, which has proved most beneficial in alleviating the sufferings of the patients. The proof of the great success of these various improvements, was afforded in the last Chinese war, when the mortality of the force, including the wounded, amounted *to little more than three per cent. per annum*, while the "constantly sick" in hospital was little more than at home. Day-rooms and institutions have been formed for the purpose of assisting the struggle against those great moral evils which were supposed to be inseparable from garrisons and camps. If no rational amusements are provided for the troops they are exposed to great temptations, and profligacy and vice must necessarily be the result of want of occupation. It is a serious question whether Government ought not to interfere to put down the open temptations to vice, as it puts down the open temptations to crime. At all events, soldier's barracks should be made more of a home to them. Let clubs be established, and increased means of occupation be provided, such as workshops, galleries, out-door games, and amusements, and rational recreation be provided in the shape of lectures, etc.

Such is a brief abstract of the main points in Miss Nightingale's paper. It certainly did great credit both to her heart and head. There can be no doubt, I think, that the morals of soldiers is a subject demanding far more attention than it has yet received, inasmuch as it has a direct bearing on health. The statistics of venereal affections in armies, if correctly reported, would not only excite astonishment, but might lead to some practical measures to diminish a class of diseases which weekly increase both the mortuary and invaliding tables.

I have introduced this subject in my letters on account of its great importance, as connected with our own extensive and military organization and operations at this time. It would be strange, indeed, and inexcusable, if we did

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not profit from the mistakes, as well as the experience of other nations, and if we did not fully avail ourselves of all the statistical results of the extended observations of medical officers connected with European armies. The object of army medical statistics, indeed, is to obtain the means of ready and accurate comparison of the health of troops at different periods, at different stations, and in different barracks or quarters, and of comparison with the sickness and mortality in civil life, so as to enable medical officers, at all times, to take immediate measures to check or counteract whatever may injuriously affect the health of the troops, whether in peace or war. I trust that the talented gentleman recently appointed to the most responsible and arduous office of Surgeon General in our army, places a proper estimate on the value of accurate and well digested statistical reports; as it is from them alone that we can have an exact and comprehensive view of the army; can know the number week by week, of effective men, and the number ineffective from each particular cause; from them only, in short, can be learned the health of the army at any given time. They will show at once the extent to which the violation of the laws of nature are carried, and the salubrity or insalubrity of certain localities; as we know that the mortality, exceeding a determinate rate, is not inevitable, so we equally well know, that if that rate is exceeded, there are errors of some kind which need instant correction. *These statistical returns should be made weekly in our army*, and a sufficient force employed to tabulate them at once, and not wait, as has heretofore been the case, *till the year has expired*, before even entering on this labor; for by so doing, their value is chiefly lost. What we want to know is, the exact amount of sickness in the army at different stations, and the diseases which are prevalent at the present time, for, without this knowledge, no rational efforts at improvement can be made. This subject, I know, has been constantly kept in view by the United States *Sanitary Commission*, whose enlightened and well directed efforts have resulted in such substantial benefits to our army. I trust they will not relax in their efforts to procure all needed statistical returns, to fully accomplish the above-named objects. No one can overestimate the value in a hygienic and sanitary point of view, of the information that may be gathered from observations made by our army medical officers during the present war. The field of observation is so vast, that these observations, if properly used, will not only enable us to measure the influences of all known causes on health, but will probably lead to the discovery of new causes, both of impaired and of vigorous life. They will not only be the means of improving the health of the army, but also furnish new contributions to the science of health, in which our whole nation is concerned.

The English, though proverbially a practical people, have been very slow to avail themselves of the advantages of accurate army and navy medical statistical reports. You will perceive from the tables I sent you, relating to the health of the British army and navy, in different parts of the world, what a vast amount of unnecessary sickness and death there still is in these departments; and when this subject was up in the "Health Department" of the "So-

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cial Congress," I felt it my duty to say, that I did not think that the sanitary regulations on board the British vessels had materially improved since the days of Captain Cook, who, in a voyage round the world, lasting three years, and with several vessels, never lost a man from disease, and scarcely had a man unable to perform duty, during this whole period.

LONDON, July 1, 1862.

My stay in London has been longer than I expected, in consequence of the many attractions which the city presents to a foreigner at the present time, independent of the scientific and professional advantages which it always possesses over any other European city. Among these may be mentioned the anniversary meetings of the great benevolent, religious, and philanthropic societies of Great Britain, the great International Exhibition, the Social Congress, the "Congrés de Bienfaisance," the Show of the Royal Agricultural Society, etc., etc. All these have demanded more or less attention; but at the same time I have not been neglectful of those matters more especially interesting to medical men.

Calling to mind that beautiful description of the "*Hospital for Sick Children*, by Dickens, in his "*Household Words*" (April, 1852), and which gave the first impulse to the establishment of a similar hospital in New York, I recently wended my way to 49 Great Ormond street, where the simple announcement that I was an American physician, procured me, as it has everywhere, all the attention and civilities I could possibly desire. However politicians may feel toward us, scientific and medical men everwhere hail us as brothers, and give us the heartiest greetings. Thus the Royal Society, the Ethnological, the Medico-Chirurgical, the Obstetrical, the Microscopic, the Pathological, etc., all throw open their doors to us, and invite us to participate in their proceedings. The London "*Hospital for Sick Children*," the first one of the kind, as far as I know, established in England, was opened in 1852, its objects being to provide for the medical and surgical treatment of poor children, to further the attainment and diffusion of knowledge regarding the diseases of children, and to aid in the training of nurses for children. The two first of these objects have been thus far very successfully accomplished. Patients laboring under any disease except small-pox are received. In the first year over 1,250, including out-patients, were treated; the report of 1862 shows that 577 were cared for within the hospital, ahd 10,792 treated as out-patients. The charity is free from debt, and is supported entirely by voluntary annual subscriptions. It is a gratifying fact, that although when first opened, mothers viewed the institution with distrust, they are now so eager to place their little ones within its walls, that the matron is compelled to keep a long list of patients waiting for their turn for admission. Four years ago the large house adjoining was purchased, so that there are now over fifty beds, while there is ample room for the accommodation of the nurses, the medical staff, and the establishment of an infant nursery, in which young children are taken care of, for a trifling charge, while their mothers are at work. One ob-

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ject in the establishment of the hospital has not yet been attained, namely, the training of female nurses. The institution, however, has been made highly subservient to the advancement of our knowledge regarding the causes, pathology, and treatment of the diseases of children. A series of valuable lectures has been delivered by the medical officers, Drs. West and Jenner, during each winter, at the hospital, which have been well attended; and the well known able work of the former, on this class of diseases, has chiefly been the result of observations made in this institution. A "*Home*" has been established at Mitcham, and another at Brighton, for the convalescent children, auxiliary to the Child's Hospital, which are accomplishing great good. But notwithstanding the benefits resulting from this establishment, how inadequate is a single hospital of fifty-five beds, for the accommodation of the sick children of this vast metropolis! It doubtless relieves a large amount of human misery, saves many lives, and is a most valuable field for medical observation, and improving the treatment of the diseases of infancy and early childhood. But twenty such institutions are as much needed among this population of 4,000,000, as one. Although 88,969 out-patients and 2,274 in-patients were treated in the course of eight years, up to 1858, and a still larger number in proportion within the last four years, these numbers are but a tithe of the poor children who have perished during the same periods in this city, for the want of such care and medical aid as this asylum furnishes.

I have stated that this was the first hospital of the kind opened in Great Britain. Since then similar hospitals have been opened in Edinburgh, Liverpool, Birmingham, and other places in the kingdom; and well may they be multiplied, when we reflect that in every 50,000 persons dying yearly in England, 21,000 of them are children under ten years of age! Many essays have been written on the causes of excessive infant mortality, and great stress been laid very justly on impure air, want of proper ventilation, unhealthy food, neglect of cleanliness, etc., but too little has been said in regard to the ignorance of mothers, not only as respects the laws and conditions of health, but everything relating to nursing, and the proper management of their children when sick. Would one-half of our population perish in infancy and childhood, were parents but even partially acquainted with the laws and facts of sanitary science? It is in vain that medical science has advanced, that vaccination has been discovered, that the conditions of health are so much better understood by the faculty than they formerly were. So long as the natural guardians of the young know next to nothing of the causes of disease or the proper nursing of the sick, so long we may expect infant mortality to remain about the same, and we know it has not diminished two per cent. for the last fifty years, and has even increased in our large cities.

Children's hospitals have now been established with success in nearly twenty of the chief cities of Europe, and it has been found that they are more important to the poor as a class, than even general hospitals. The proper care of sick children requires special arrangements, and those can only be found, at least for the poor, in properly constructed hospitals. I say nothing of the

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tact, experience, and skill, required in the successful treatment of the diseases of young children; though no one can doubt that when studied as a specialty, this class of affections is much more successfully managed than when treated as they usually are. Dickens has very truly observed that the deaths of children are against the laws of nature; and that not against passive laws, but against the striving of every secret and mysterious power bestowed on the human baby to prevent them. What terrible abuses then must exist to cause such excessive mortality! I looked with more pleasure upon the large and pleasant rooms of this hospital, and the well cared for little patients, than any similar institution that I have ever visited. There was perfect order and neatness everywhere; thorough system in everything; the most assiduous and careful nursing; the highest medical skill always at hand; complete ventilation; pleasant sights and sounds; a beautiful garden in the rear of the dwelling; cheerful, happy faces everywhere; no wonder, that this hospital has the queen for its patron, and noblemen for its officers and board of managers.

I have singled out this establishment for particular notice, because I am satisfied from long experience and observation among the poor of New York, that several such asylums are much needed in that city. *One* children's hospital cannot supply accommodation for one-tenth or twentieth of the number that ought to be sent to such institutions. Of the tens of thousands of children treated annually by the physicians of our different dispensaries, how many more might be saved that now perish, had they the kind care and attentive nursing which would be extended to them in well managed hospitals!

LONDON, July 6, 1862.

There are numerous objects of great interest to medical men in the great International Exhibition, to which I propose to devote a few letters. The magnifficent display of the products of nature and art from every part almost of the habitable globe, far greater than has ever before been collected in one place, would well repay an American for a trip across the Atlantic; and, apart from the natural scenery and geographical features of different countries, will teach the careful observer more in one week than would be learned by many months or even years of travel. I have devoted a week or more to the examination of the various articles, and feel that I have but just begun to know even superficially what is to be found in the great collection; to do the individual articles justice or examine them so as to be a source of profit hereafter, would require many months of careful study.

Let us first glance at the chemical and pharmaceutical products. These are chiefly contained in the Eastern annex. They may all be included under the heads of Chemicals used in manufactures; fine chemicals and rare products; dyes, pigments, and varnishes; pharmaceutic alchemicals and drugs; and miscellaneous chemical manufactures. Under the first class may be included the various acids, iodine, phosphorus, alkalies and their compounds, alum, sulphate of copper, chloride and oxide of tin, nitrate of lead, chloride of gold, nitrate of silver, benzole, etc. *Amorphous phosphorus*, which is much harder and

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less inflammable than the ordinary form, is worthy of notice, inasmuch as its manufacture does not cause disease among the workmen, and the manufacture of Lucifer matches from it has just been introduced into England, although employed for this purpose several years past, I believe, on the Continent. In the matches made from it, the match-tip contains chlorate of potash, and the friction tablet on the box, amorphous phosphorus; and it is not until the two are rubbed together that combustion can take place, the two bodies when separate being incapable of becoming inflamed by friction. The peculiarity of these matches therefore consists in the separation of the two materials which by friction cause combustion. Amorphous phosphorus is only inflammable when rubbed in contact with chlorate of potash or black oxide of manganese; of course they do not ignite by any ordinary friction, and no danger arises from their being carelessly used or thrown about by children.

Splendid and numerous specimens of crystals of carbonate of soda are exhibited, some masses in nearly perfect rhomboidal prisms, many inches in length. The importance given to this substance is readily perceived, when we learn that there are now over fifty establishments in Great Britain in which soda is manufactured on a large scale by the decomposition of common salt with sulphuric acid, producing 3000 tons of soda ash per week; 2000 tons of soda ceystals, 250 tons of bi-carbonate of soda, and 400 tons of bleaching powder also each week, the total annual value exceeding two millions sterling.

There are also beautiful specimens of the metal *sodium*, which until lately was a purely chemical curiosity, but now manufactured in large quantities as a commercial article, for the purpose of reducing aluminium from its compounds. It is silver white; so soft at ordinary temperatures that it may be easily cut with a knife or pressed between the finger and thumb; melts at 194° F., and oxidizes rapidly in the air, inflaming when a few drops of water are added to it. But perhaps there is no more interesting display in the list of chemicals than that of the *Cave Products*, including *aniline* and its various salts, and aniline dyes. But before speaking of these, I may refer to a splendid collection of *bile products;* a piece of *iron* made from the blood of an ox; a specimen of the new metal *thallium*, lately discovered by means of *spectrum analysis* by Mr. Crooke; and specimens of *cæsium* and *rubidium* discovered in the same manner by Bunsen and Kirchoft. I have already referred to this subject in one of my former letters, but its importance perhaps deserves further elucidation. At a late meeting of the Royal Society I saw the subject beautifully illustrated by electric light, and a large solar spectrum by Professor Miller of King's College. If any salt of soda is burnt in a flame it gives a yellow light, and if a beam of this monochromatic light is passed through a prism it produces a well-defined series of lines, lithium another set, and thus it is found that every substance produces its own peculiar spectral image. In this way the two new metals here exhibited, *cæsium* and *rubidium* (*cæsius*, grey—*rubidus*, red) were discovered in the alkaline waters of Durkheim, but in so small a quantity, that he evaporated down 500 tons of this water to get about 100 grammes of the chloride of rubidium, and 70 grammes of the chloride of

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cæsium; so that out of 44 tons of water, he got only about 200 grains of the mixed chlorides of these two new metals. Dr. Stenhouse exhibits a choice collection of the proximate principles discovered by him in the *lichens* and *algæ*, with other rare chemicals, the result of his own researches; while Dr. Church contributes a curious collection of the rare vegetable acids, such as *tolnic acid*, *suberic acid*, *pieric acid*, and their salts, with many others. Never before have I seen such large quantities of the *vegetable alkaloids* and their *salts*, as are exhibited by Mr. Hulle and Mr. Squire. Here are all the products of opium; the alkaloids yielded by the aloe tribe; and *coffeine*, of which the coffee of Martinique yields much the largest percentage; also *theine*, the *volatile organic acids* and their *ethers*, *essential oils* and their *essences*, etc. The splendid specimens of *paraffin* call to mind a suggestion which the rare sagacity of Liebig made more than ten years before its discovery. "It would certainly be esteemed one of the greatest discoveries of the age," says Liebig, "if any would succeed in condensing coal gas into a white, dry, solid, ordorless substance, portable, and capable of being placed on a candle-stick or burned in a lamp." And now we have the solid white paraffin made into candles, whiter and finer than the purest wax, while the liquid products are sold for burning in lamps and for lubricating properties. It is worthy of mention that not a single explosion has ever occurred from Young's paraffin oil, although millions of gallons of it have been consumed in Great Britain. Many dangerous naphthas, however, are sold under this name. Most of the specimens of paraffin in the exhibition, have been obtained from turf or peat, and brown coal, although it may be procured from the various petroleums, bitumens, and coal oils, or bituminous coals. We can hardly over-estimate the importance of this discovery. I suppose that this is the finest collection of chemical products the world has ever seen. But let us return to *aniline* and its beautiful dyes. This substance, first formed by Unverdorben, by acting on indigo with hydrate of potash, in a colorless limped liquid, of an agreeable vinous odor and burning taste, and takes its name from *anil*, an Indian word, applied to one of the plants from which indigo is obtained; afterwards it was found in coal; and, in 1856, Bechamp discovered a method of forming it from benzole, by mixing it with nitric acid, which converts it into *nitrobenzole*, and then subjecting it to the action of acetate of iron, in the form of acetic acid and iron-filings—the resulting decomposition furnishing aniline in large quantities. As it is a base, it forms crystallizable salts with acids, which are analogous to those formed from the metals. The sulphate is the salt generally used in the manufacture of dyes. I believe it was Dr. Hoffman, who, by pointing out the test for the presence of analine, led the way to the discovery of the new and splendid aniline series of dyes: although it was Mr. Perkins, son of the American steam-gun Perkins, who discovered *mauve*, or "Perkins's purple," whilst endeavoring to make artificial quinine. I need not point out the chemical processes for obtaining these magnificent colors, as they may probably be found in recent chemical works. They are known as *mauve*, *magenta*, *fuchsine*, *rosaniline*, *indisine*, *asaleine*, *etc.*, which are only modifica-

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tions, probably, of the same substance, *aniline.* There are three large splendid crowns of acetate of rosaniline, in large octahedral crystals, possessing a metallic lustre, rivalling in effect the wing cases of the most brilliant Indian beetles.

I pass over the *dyes from lichens and madders, lac-dye, indigo,* the various *pigments and varnishes, etc.,* which, though highly useful in the arts, are not particularly connected with medical science, to notice *Medical and Pharmaceutical Products.* The Pharmaceutical Society of London exhibits a very complete collection of these, including nearly every preparation found in the edition of the British Pharmacopœia. Here, perhaps, is the finest collection of *Cinchona Barks* ever brought together; each specimen of bark being placed in front of an excellent specimen of the species of cinchona tree from which it has been taken; near by, also, are specimens of the living plant; associated with them is a fine series of quinine and other cinchona alkaloids. The samples of *ether, chloroform,* the *essential oils,* and the *opium alkaloids,* are on a very large scale, while the specimens of *codeine* are, perhaps, the finest ever seen crystallized in large masses. *Cod-liver* and *Dugong oil* figure largely, while there is a large display of the various *syrups;* among the rest, our American preparation of the *compound syrup of phosphate of iron,* absurdly called "chemical food." The *Fluid Extracts* of the most important substances are also exhibited; and as alcohol is considered as a very objectionable adjunct in making these preparations, *glycerine* is substituted in its place, as well as a solvent for many of the alkaloids and other vegetable principles. It has this advantage, that fluid extracts prepared with it remain unchanged for a long time, and are perfectly miscible with water. The extracts, I believe, contain about 15 per cent. of glycerine. Here also, I saw *pepsine wine, santonin, kamala,* and cigarettes of the *datura tatula,* which is believed by many superior to the common stramonium in alleviating asthmatic complaints.

I should have stated that the *chloroform* exhibited is chiefly from the manufactory of Messrs. Flockhart, Duncan and Co., of Edinburgh, whose establishment I visited in 1849, and was furnished with their formula. They then had acquired a great reputation for the excellence and purity of the article they produced, and this reputation has been fully sustained to the present time. The samples which they now exhibit, are produced from pure alcohol and also methylatic spirit. No one can examine this extensive collection of pharmaceutical products, contributed by many pharmaceutists, not only of London, but also of the country, without being struck with the very great advancement made in this branch of our profession, within the last ten or fifteen years. Not only have many new substances been discovered or isolated from the crude vegetables containing them, but the evidences of more careful, scientific and skilful manipulation are everywhere apparent. This is especially obvious in the preparation of *solid* and *fluid extracts,* as well as *syrups* and *ointments.* Still, there can be no doubt that these latter are far inferior to the same preparations of the Messrs. Tilden of New Lebanon, and other manufacturers in the United States; inasmuch as they are not prepared *in vacuo,* I

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believe, in a single instance. The vacuum-process has long been adopted in *our* country as well as France, but scarcely at all in Great Britain; hence, their solid and fluid extracts, though elegantly put up, are quite inferior in efficacy to both American and French. They neither keep as well, nor are they of equal strength. It seems to be supposed by some, that evaporation *in vacuo* can only take place at a temperature of 212° F., which would be sufficient to decompose the active principles of the articles employed. But the Tildens conduct this process at the temperature of 120°. There are some extracts exhibited from which the albumen has been removed; some inspissated at low temperatures in a current of dry air, and some effected in shallow earthen pans at a temperature not exceeding 120°, with constant and active agitation. There are, probably, very few specimens but what would become mouldy on exposure to the air, and few but what would rapidly deteriorate from the same cause. I do not find that much attention has been paid here to the influence of cultivation, different soils, or fertilizers, in modifying the constituent principles of plants. In this respect our countrymen and especially the Messrs. Tilden have taken the lead, although Mr. Lawes of Rothamstead has recently instituted some experiments in the same direction.

But I am in danger of extending my letter to too great a length. I have recently been visiting and obtaining plans, etc., of the best constructed civil and military hospitals in Great Britain, and have been kindly aided by the government official's especially Capt. Galton, one of the commissioners appointed by Parliament in connexion with Lord Herbert and Dr. Sutherland "for improving the sanitary condition of Barracks and Hospitals." Hereafter, I shall have something to say on these important subjects.

On the Treatment of Diphtheria.

By Dr. John West Walker, Spilsby.

[These are the three following salient characteristics of a case of diphtheria: 1. A more or less acute unhealthy form of inflammation affecting the faucial region. 2. The presence of the peculiar leathery exudation. 3. The marked tendency to death by exhaustion.]

For each of these several characteristics, our materia medica possesses a remedy of almost specific virtue.

I have long looked upon guaiacum as a specific in common sore-throat; for, no matter in what place, what the age, sex, or condition of the patient, or what the stage of the complaint, I have always administered it, and had reason to be satisfied with the result; indeed, I consider the effect of this remedy in such cases to furnish an example of cure as distinguished from treatment. (*Vide* Dr. Latham's Lectures.) Frequently have I seen cases of cynanche and diphtheria existing at the same time and in the same family;

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and I was first induced to give guaiacum in the more severe affection by observing its good effect in cases which, at the onset, were supposed to be examples of common sore-throat. I now unhesitatingly consider guaiacum as the remedy *par excellence* for diphtheria. The presence of the peculiar exudation almost instinctively suggests the employment of the chlorate of potash. For the debility, &c., our sheet-anchors are ammonia and bark.

My prescription for all cases of diphtheria is the following:—

℞ Potassæ chloratis.....ʒiv.
Tincturæ cinchanæ comp.....ℨss.
Tincturæ guaiaci comp.....ℨss. ad ʒvj.
Mellis.....q. s.
Aquæ.....ℨviij. M.

Of this mixture from one tea to two tablespoonfuls may be given, according to age; but the interval between each dose, from one to four hours or three times a day, must be regulated according to the severity of the case.

These, then, I consider the therapeutic essentials in the treatment of diphtheria; but, in a complaint so terrible, it behoves us to resort to every possible adjuvant, however slightly it may contribute to the general good; and under this heading I am disposed to place all topical applications. My plan is to apply (by no means frequently) a concentrated solution of nitrate of silver, believing it to hasten the removal of the exudation, and to induce a more healthy action over the denuded surface. Of gargles, I consider weak vinegar and water, or what is more elegant, dilute acetic acid with infusion of roses, to be as good as any, producing slightly stimulant and astringent effects on the parts, and washing away offensive detached particles. Externally, warmth applied after the manner of poultices, of which a bag of chamomile-flowers is as convenient as any, together with mild terebinthinate embrocations applied two or three times a day, are to be recommended. Like most of my fellow-practitioners, I avoid mercurials; and should the bowels require moving, castor-oil or the milder laxatives suffice.

The *diet* should be nutritious, with an increasing allowance of wine from the first. Lastly, we should ever be on the alert to remove as far as practicable the primary cause of the complaint by attention to every sanitary particular.

In advocating the guaiacum treatment of diphtheria, I must disclaim all credit for originality. Others have recommended it to the notice of the profession; and more, I doubt not, are daily in the habit of carrying it out in practice. What I desire is, that many of my fellow-practitioners may be induced to try a remedy which, from what I have lately read on the subject, is not so extensively employed as it deserves to be.—*Brit. Med. Jour.*, *Dec.* 21, 1861, *p.* 655; *Braithwaite's Retrospect.*

Medical Council.—Professor Sharpley, of University College, London, has been nominated by the Crown to the seat at the Medical Council, vacant by the death of Dr. Baly.—*Pacific Med. and Surg. Journal.*

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The Sarracenia Purpurea, a Remedy for Small-Pox.

To the Editor of the American Medical Times:—

SIR:—You have by this time, in all probability, heard something of an extraordinary discovery for the cure of small-pox, by the use of "Sarracenia Purpurea," or Indian Cup, a native plant of Nova Scotia. I would beg of you, however, to give full publicity to the astonishing fact, that this same humble bog-plant of Nova Scotia is the remedy for small-pox, in all its forms, in twelve hours after the patient has taken the medicine. It is also as curious as it is wonderful that, however alarming and numerous the eruptions, or confluent and frightful they may be, the peculiar action of the medicine is such that very seldom is a scar left to tell the story of the disease.

I will not enter upon a physiological analysis now; it will be sufficient for my present purpose to state, that it cures the disease as no other medicine does—not by stimulating functional re-agency, but by actual contact with the virus in the blood, rendering it inert and harmless, and this I gather from the fact that if either vaccine or variolous matter be washed with the infusion of the Sarracenia, they are deprived of their contagious properties. The medicine, at the same time, is so mild to the taste that it may be mixed largely with tea or coffee, as I have done, and given to connoisseurs in these beverages to drink, without their being aware of the admixture.

Strange, however, to say, it is scarcely two years since science and the Medical world were utterly ignorant of this great boon of Providence; and it would be dishonorable in me not to acknowledge that had it not been for the discretion of Mr. John Thomas Lane, of Lanespark, County Tipperary, Ireland, late of Her Majesty's Imperial Customs of Nova Scotia, to whom the MecMac Indians had given the plant, the world would not now be in possession of the secret. No medical man before me had ever put this medicine upon trial; but in 1861, when the whole Province of Nova Scotia was in a state of panic, and patients were dying in the hospitals at the rate of twelve and a-half per cent., from May to August, Mr. Lane, in the month of May, placed the "Sarracenia" in my hands to decide upon its merits; and after my trials then and since, I have been convinced of its astonishing efficacy.

The Indian Cup is found in swamps and moss bogs. Its capacious globular receptacles are generally filled with cool, bland water. The Cups are lined with bristles pointing downwards, that entangle the flies that come to drink, so that few escape drowning. It is a very curious and remarkable family of plants exclusively North American, and not to be met with west of the Alleghanies. The leaves take the form of a long bulbous tube or funnel, like the bowl of a tobacco-pipe, terminating with a hood-shaped appendage not unlike an Indian squaw's cap. The flowers, with their hard involuted crenate calyx, and fine sessile segments, like the yellow water-lily, deep crimson stigmata, and corresponding stamina, in form and appearance are very remarkable. All of the tribe inhabit marshy grounds. The "Sarracenia Purpurea" is the most common species, and like all the beautiful things of Providence, widely

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diffused from Hudson's Bay to the State of North Carolina. The root consists of numerous radicles, fibrous and stringy, which when powdered, have a very faint and agreeable aroma, with a taste very like the willow alkaloid, or salicin. The dose of the medicine—the powdered root—is about a dessert-spoonful, simmered in a pint of water down to half a pint; this is divided into two doses, one taken immediately, the other in six hours; no sugar should be given with it. The only functional influence it seems to have, is in promoting the flow of urine, which soon becomes limpid and abundant, and this is owing perhaps to the defecated poison or changed virus of the disease exclusively escaping through that channel. The "Sarracenia," I take reason to believe a powerful antidote for all contagious diseases, lepra, measles, varicella, plague, contagious typhus, and even syphilis, also a remedy in jaundice. I am strongly inclined to think it will one day play an important part in all these.

Yours, etc.,

FREDERICK W. MORRIS, M. D.,

Resident Physician of the Halifax Visiting Dispensary.

—*Am. Med. Times, May* 24, 1862; *Chicago Med. Examiner.*

Cases of Severe Neuralgia Treated by Valerianate of Ammonia.

Under the care of Dr. O'CONNOR, at the Royal Free Hospital.

The following cases of neuralgia, extracted from the case-book of Dr. O'Connor, are representatives of a large class of a similar character which have come under his care. They illustrate the success attending the use of the valerianate of ammonia as a remedy in the severer forms of this malady. Dr. O'Connor informs us that this drug, if retained in a state of crystallization, rapidly decomposes, and is uncertain in its action. It should be kept in solution, and the smallest dose he is in the habit of giving of the latter is equal to twenty grains of the crystal.

Case 1.—J. R., a man aged 46 years, a porter, unmarried, was admitted Nov. 9th, complaining of excruciating pain in the right side of the face, commencing near the malar bone, from thence extending to the nose, over the whole of the upper, and then to the lower jaw. He has been subject to the pain for ten years; it is generally most severe about ten o'clock at night, but he is never totally free from it. For the last week it has been most excruciating, and he has had scarcely any sleep. He has been under the care of many medical men, and sought advice at various institutions, without benefit. Dr. O'Connor ordered him a dose of compound powder of jalap to be taken directly, and a draught of three drachms of Bastick's solution of the valerinate of ammonia in infusion of calumba every three hours.

On Nov. 16th he again presented himself at the hospital, when he said that after taking two doses of the medicine the pain was considerably relieved, and that he had no occasion to have recourse to the remedy after the sixth dose. He is now well and free from pain.

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Case 2.—P. B., a married woman, aged 31, admitted same day as the foregoing; has two children. For a number of years she had been subject to attacks of neuralgia, which come on generally about five o'clock of an afternoon and continue with great severity for five hours. The pain seizes her first behind the right ear, extends to the nape of the neck and back of the head, and frequently shoots with great rapidity along to the malar bone, then to the lower jaw; and she is suddenly seized with pain at the region of the heart. She is suffering from aortic valvular disease. At times the pains are so severe that she cannot bear the slightest blast of wind, and is obliged to roll herself on the floor. She was ordered three drachms of the solution of the valerianate of ammonia in infusion of calumba every three hours.

On Nov. 13th she was very much better; has had only three attacks since the 9th. The medicine to be continued.

23d. Has had no pain since the 18th.

Case 3.—R. P., a married woman, aged 42; has had eight children; works as a laundress; has suffered from neuralgia of the fifth pair on the left side for nearly twenty years, and has sought advice at many hospitals with only temporary relief. When the paroxysm is most severe the pain extends to the side of the neck and shoulder; it also causes deafness. She is obliged to go to bed, and cannot take any food, the slightest motion causing intense agony. For ten years back the paroxysms have been more severe and of longer duration. She was admitted under the care of Dr. O'Connor, on the 13th of November, whilst in severe agony; had no sleep the previous night; her health is otherwise good; and the teeth perfectly sound. She was ordered four drachms of the solution of valerianate of ammonia, in infusion of calumba, to be taken every three hours; a dose of compound powder of jalap directly.

On the 27th she states that after a few doses of the medicine the pain diminished, and on the following day it entirely disappeared.

Jan. 8th, 1862. This woman became an out-patient from an attack of influenza. She states that since the 28th of Nov. she has not had any return of pain.

Case 4.—L. C., aged 49, a married woman, admitted on the 20th of Nov. She has had nine children; has been for nearly ten years subject to severe attacks of neuralgia of the right side of the face, right eye and the tongue. These paroxysms came on generally at eight o'clock in the morning and four in the afternoon, and as soon as she puts anything into her mouth she describes the pain as insufferable. Her health is otherwise good, and her teeth are all sound. She was ordered a draught composed of four drachms of the solution of valerianate of ammonia, in infusion of valerian, to be taken every two hours, and to be repeated oftener if the pain continues in its severity.

Nov. 30th. She states that since the 27th she has had sound sleep every night, and the paroxysms of pain only come on once a-day, and then of much milder character. The medicine to be taken every six hours.

Dec. 14th. Has had no return of pain since the 1st, and now feels quite well.—*Lancet, Jan.* 18, 1962, *p.* 68; *Braithwaite's Retrospect.*

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Selections.

PODOPHYLLIN IN CERTAIN CASES OF INFANTILE CONSTIPATION.—Dr. Chadwick, of Liberty Mills, Ind., writes as follows:

"I would call your attention to the fact that I have used the podophyllin in those cases of obstinate constipation of infants which have been attributed by writers, of late, to a want of intestinal secretion. Such cases have been treated, I believe, by cathartics, without much benefit; but by reference to the *Lancet* I find that sarsaparilla and corrosive sublimate have been relied upon. I do not propose to theorize upon the pathology of the disease, or the *modus operandi* of the medicine; but this I know, that the treatment was followed by the happiest effect. I had an opportunity of observing it, perhaps more closely than I otherwise could, in my own family. Our babe would have no motion from its bowels for several days, without aid. We gave it castor oil, rhubarb, magnesia, and other mild laxatives, without any permanent benefit. I then directed the use of the podophyllin, in doses of one-thirty-second grain, rubbed with a sufficient quantity of sugar, every night. In a few days this was followed by a motion the next morning; and by continuing this treatment, its bowels moved twice daily. I then ordered the powders every other night, and shortly afterward discontinued them altogether. The child is now well and thriving, and has a regular and healthy action of the bowels. I should have said that I commenced the treatment when the child was about two weeks old. I have treated others on the same principle."—*Cincinnati Lancet.*

CHLOROFORM CORRECTING BITTERNESS.—According to Mr. Grave (*Repertoire de Pharmacie,*) chloroform has the property of modifying the taste of certain bitters, and when added to tincture of aloes, gentian, or to sulphate of quinine suspended in water, it nearly altogether removes the bitterness.—*Am. Drug. Circular.*

CAMP DYSENTERY.—Dr. C. D. Griswold declares this disease to be of malarious origin, and places it in one group with intermittent, remittent and yellow fever. The difference between these affections is, according to him, only the result of the different organs being attacked. The treatment found preëminently successful is laid down as follows: Rhubarb, two grains; opium and ipecac, of each half a grain; mix thoroughly and make into powder with a little white sugar. When there is indication of acetous fermentation in the stomach and bowels, add a little subcarbonate of soda; when there is obstinate constipation, increase the rhubarb; if the bowels are relaxed, lessen it. If fever runs high, increase the ipecac, until nausea is produced. The rhubarb will work its way through the bowels and carry the opium to the seat of the disease preventing the formation of scybala, and the necessity of other cathartics. When there is no fever at the commencement, four grains of quinine should be given to the adult, alternating with the above powder, every third hour. When there is well-marked pyrexia, wait until a distinct remission be-

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fore giving the quinine. It should be continued until sixteen or twenty grains are taken, or cinchonism is produced. With this treatment, commenced early, the great majority of cases will be cut short within forty-eight hours.—*Boston Med. and Surg. Journal; Cincinnati Lancet and Observer.*

Treatment of Dysentery.—In an elaborate report of Surgeon-Major A. Blacklock, Physician to the Madras General Hospital, (*Madras Quart. Journ. of Med. Science,*) some further evidence is furnished in regard to the efficacy of ipecacuanha in acute dysentery. The disease can seldom be successfully treated by any one remedy; but nothing will so soon bring the system into a condition favorable to the restoration of healthful function to the diseased intestine, and so surely obviate the necessity of blood-letting, as large doses of ipecacuanha, if administered in the first stage of the disease. Venesection is objectionable, and local depletion only valuable as such, when from the anus. The use of ipecacuanha should be continued until the sthenic stage is produced, and no longer. Green feculent discharges always indicate a low condition of the vital powers, and are best treated by some astringent salt of iron, wine and nourishing diet. After the acute stage is subdued, the tincture of the sesquichloride of iron should be given in sufficient doses to serve as a tonic to the heart, as a restorer of hæmatin, as a consequent stimulant to the pulmonary respiration, and as a depurator by its action on the kidneys. Real amendment never begins till free diuresis is established. Therefore a diuretic is prescribed at the same time, composed of compound tincture of camphor, tincture of opium, nitric acid, squill and tincture of Spanish flies, to be taken at night. Quinine is necessary when the fever becomes remittent. The diet should be more liberal than is usually allowed in acute dysentery.—*Am. Med. Times; Ibid.*

Strychnine in Chronic Rheumatism.—In three cases of chronic rheumatism, Dr. O. C. Gibbs used nothing but strychnine. Of a solution containing four grains to the ounce, five drops were ordered three times a day, increasing one drop every second day, until ten drops were reached, or even fifteen, if improvement was not very decided before that time. Neither of the cases have resisted for more than three weeks.—*Med. and Surg. Reporter; Ibid.*

Epistaxis.—Mr. Rawdon Macnamara says: In simple cases of passive epistaxis in delicate patients and due to some trifling congestion, we can not do better than at once have recourse to five or six grain doses of fresh prepared powder of ergot of rye, repeated according to the emergency of the case, every ten or fifteen minutes. In that form of epistaxis which, contemporaneously with hæmorrhages in other situations, appears in purpura, or in the advanced stages of blood diseases, or by exposure to wet, the palm must be given to turpentine, either alone in capsules, or in the form of emulsion, or combined with brandy or whiskey, in the form of punch. The latter is made by adding from half to a full wineglass of spirits of turpentine to a tumbler of brandy or whiskey punch, and administered, in severe cases, to the patient in as short

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a space of time as he can swallow it. The extraordinary results that ensue in apparently hopeless cases from the exhibition of this horrid dose require to be witnessed before they can be believed. In a letter to the author, J. Smyly advocates as a cure for epistaxis to fill the cavity of the nose with a few slips of lint introduced from before. He prepares them about one foot long and half an inch wide; doubling two inches of the first slip over the end of a a strong director, he passes it along the floor of the nasal cavity as far as the posterior nares; the rest of the slip is then packed in, and the extremity, which should be made to taper, is left projecting out of the nostril for the purpose of its more easy removal. After this another and another slip is thus introduced, until the cavity is full.—*Dubl. Quart. Journ. of Sci.; Boston Med. and Surg. Journ.; Cincinnati Lancet and Observer.*

Tannin an Antiperiodic.—In a memoir recently published, Dr. Leriche, of Lyons, accounts for the former failure of tannin in the treatment of periodic affections by the insufficiency of the doses. In 1840, Dr. Chaussarel exhibited it in gradually increasing doses from ten to forty-five grains in six ounces of fluid, to be taken in tablespoonfuls every three hours during apyrexia. This cures the fever only when persevered in for a very long time. The medicine should be given three hours before the paroxysm, in doses of from twenty to thirty grains. Two or three doses are usually sufficient. It may be necessary to exhibit as much as one dram or a dram and a quarter at once. If the fever should not yield, fifteen grains only should be given in a mixture to be taken in tablespoonfuls every hour. Mr. Leriche has never seen this remedy fail in its effects. The following are some of his most usual prescriptions.

Mixture: Distilled water, four ounces; orange-flower water, one dram; tannin, from fifteen grains to one and a half dram; syrup, one ounce. To be taken in tablespoonfuls hourly, or in two doses a couple of hours before the paroxysm.

Powders: Tannin, one dram; divide into eight papers. Each powder to be taken in a wafer, in jelly or dissolved in half a glass of sugar and water.

Syrup: syrup, sixteen ounces; orange-flower water, two ounces; tannin, two drams.

Enema: Decoction of barley, six ounces; tannin, half a dram; wine of opium, eight minims.—*Dubl. Med. Press; Ibid.*

Delirium Tremens.—Prof. Roser, of Marburg, thinks (*Archiv d. Heilk.*) that patients sometimes die on account of the timidity of physicians in prescribing opium in large doses. The vital indication is to quiet delirium, and this is to be done by energetic doses only; two grains of morphia at once and one grain more hourly, until the pupils are strongly contracted and the respirations descend to ten, eight or even six in a minute. In such deep and alarming narcotizing lies the safety of the patient.

Dr. L. Elsburg used the fluid extract of ergot—instead of the tincture, as recommended by Dr. Smith—in a very grave case of mania-a-potu with surprising success.—*Amer. Med. Monthly; Ibid.*

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INFANTILE ERYSIPELAS—*Application of a Mixture of Tannin, Alcohol and Chloroform—prompt Recovery.*—We know how grave a disease infantile erysipelas usually is; is the erysipelas which is sometimes developed about vaccine vesicles less serious in its character? We are quite disposed to think so. However the case may be, the method employed by M. Loiseau, of Montmartre, and said to have been followed in many cases by excellent results, although as yet it has been tried only in the erysipelas resulting from vaccination, seems to us none the less deserving of being brought to the attention of our readers.

Being called to attend a little girl about a month old, who had been vaccinnated a week previously, M. Loiseau found four very large vaccine vesicles on each arm. The circle of erysipelas which surrounded each vesicle, ran into the next, and thus the whole anterior surface of the arm was covered by it. Her pulse was very frequent, and the agitation extreme; the infant had refused to nurse since morning, and cried incessantly. M. Loiseau applied immediately to the whole of the affected surface a mixture of tannin in brandy, with a small quantity of chloroform. The application was repeated at first at intervals of ten minutes. The child ceased crying almost immediately, took the breast and went to sleep. The application was continued every quarter of an hour, then at intervals of half an hour until night. The child was seen on the following morning; it was calm and had continued to nurse as usual, and the erysipelas had made no further progress.

Undoubtedly one would not presume to say in this case that the erysipelas might not have been self-limited; but we agree with M. Loiseau in regard to it, that the immediate relief to the suffering was very probably due to the treatment.—*Journal de Médicine de Bordeaux* from the *Gaz. des Hopitaux; Boston Med. and Surg. Journal.*

ACETATE OF POTASH IN GONORRHŒA.—Dr. Betoldi states in the May number of the *Annali di Medicina*, that he has had much success with this salt in gonorrhœa, given in doses of about one dram a day. The author seems to look upon this medication as novel, and is probably not aware that acetate of potash has for some time been given in this country in cases of gonorrhœa, with variable results.—*Chicago Med. Examiner.*

CAPSICUM IN DELIRIUM TREMENS. *By Chas. Ferneley, Esq., Grantham.*—[Mr. Ferneley's attention was first directed to this treatment of delirium tremens by Dr. Foss, principal medical officer of the garrison at Cork. He says:]

I have used it on several occasions both in public and private practice with success, its administration having almost invariably been followed by more healthy perspiration and refreshing sleep, from which the patient has awoke quiet and relieved from the nervous excitement. The way that I have used it has been in the form of punch, first making a moderately strong infusion, two scruples of Cayenne pepper to a pint of boiling water, straining it when cool, and adding sugar and citric acid to suit the taste. It is very palatable, and will be taken by the patient *ad libitum.*—*Lancet, March* 15, 1862, *p.* 287; *Braithwaite's Retrospect.*

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MALIGNANT PUSTULE.—Dr. P. S. Swart, of Schoharie, having seen a paragraph in our paper relating to a case of sudden death, from malignant pustule, writes to the *Republican* as follows:

"It has fallen to my lot to be called and attend a number of cases of malignant pustule. The first two proved fatal, notwithstanding several consulting physicians were in attendance. In the last of these two cases, I determined, if ever called upon to attend another, to adopt an entire different course. Within a few months from that time I was again called upon to attend a case of this kind. Instead of treating it as of an inflammatory nature, I took just the opposite course. First I punctured the pustule and inserted a *tent;* then applied a cataplasm of yeast and Peruvian bark (fermented) and as often as it became dry, changed and re-applied the same and continued to apply until matter was formed and a change in the color of the lips and a reduction of the swelling took place."—*Albany Paper.*

INFLUENCE OF THE MIND OVER SENSIBILITY.—Among other matters of medical interest in a report to the Surgeon-General of the United States (published in the *Boston Medical and Surgical Journal*), Dr. William H. Page thus notices the effects of mental excitement in modifying sensibility:

"Several patients brought to me were saved by sheet-iron vests; one by a small, round, tin-cased mirror in his vest watch-pocket. I showed him that he was unhurt, when to his great joy he straightened up, looked for a moment, seized his sword, and in a minute more was flying to his regiment, which was then in the hottest of the fight. This was also a round ball, and he thought surely he was shot through the chest. I had another to-day, 5th Michigan, on picket, shot by a conical ball in the belt plate, carrying away a large portion of the U. S., but it was able to glance it from his body, though it went afterwards through his arm, about three inches below his elbow.

"And this reminds me of some cases to illustrate the all-absorbing interest which men take in a fight or on picket, especially in the murderous, barbarous manner in which picketing is here done. Another man, belonging to the same regiment, (5th Michigan,) was brought in at the same time. He says that when his comrade, above mentioned, fell, (for it knocked the breath out of him for a moment,) he retired behind a tree for safety, and to wait his chance to send the enemy a similar message, not having the least idea that he was hurt. He had lain there some time, watching with eagle eye, when he felt something running down the front of his body, and on opening his vest, for the first time found that he had three buck-shot just above his heart, and the ball itself had cut a gash an inch and a half long, and over half an inch broad, on his left breast. Several other cases of a much severer character have been related to me by the wounded, where they knew nothing of it at the time, and but for the multitudes which were pouring in upon us, preventing all conversation, I have no doubt I could have collected scores.

"This all-absorbing interest was also remarkably illustrated by the ease with which I was able to perform almost all sorts of operations, while the tide of battle was flowing nearer and nearer, without the use of any anæsthetics

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whatever, and without any complaint from the wounded, thus enabling me to relieve twice the number and more."—*Dental Cosmos.*

Goitre Successfully Treated by Large Doses of Bromide of Potassium and Liquor Potassæ.—Cases of Goitre, and especially those of long standing, are some of the most troublesome and unsatisfactory that fall under the notice of practitioners. In many of them, even where the treatment has been successful for a time, it sometimes happens that from very trifling exciting causes the gland enlarges to as great a size as ever. During the past year we had the opportunity of seeing over a dozen examples of goitre, under Dr. O'Connor's care, at the Royal Free Hospital. In a few of those cases, iodide of potassium, in small doses, gradually increased to much larger ones, with the external application of strong iodine paint, was tried without benefit. The same remedies in combination with steel, and generous living, were equally unsuccessful. Bromide of potassium, in doses of five grains, with ten minims of liquor potassæ in infusion of quassia, was next tried, and continued for some time, with benefit, the bromide being gradually increased to doses of twenty-five grains, three times a day, with forty minims of liquor potassæ. In all the instances in which it was given for a proper length of time, the result was a complete disappearance of the glandular enlargement. The minimum dose of the bromide now administered in these cases by Dr. O'Connor is ten grains, with twenty minims of liquor potassæ and infusion of quassia. There are now three patients under treatment in whom the progressively beneficial effects of this remedy are clearly discernible. In many of these cases strong iodine paint is used as an application. We have heard Dr. O'Connor state, that the bromide of potassium does not produce any of the depressing effecte of the iodide, which is a practical point of very great importance.—*London Lancet; Jour. of Rational Medicine.*

Arrest of Secretion of Milk.—Dr. Harriss, of Savannah, employs a saturated solution of camphor in glycerine in preference to belladonna. It is gently applied over the surface by means of flannel, several times a day. The same solution, with the addition of four grains of tannin to the ounce is of utility in sore nipples.—*American Med. Times, No.* 15, *and Med. Times and Gazette, p.* 511; *Braithwaite's Retrospect.*

Anæsthesia of the Uterus.—Dr. White, of Buffalo, has exhibited an ingenious apparatus for applying either the vapor of chloroform, or carbonic acid gas, directly to the os uteri. It consists of a generator, to which an elastic tube is attached, with a glass tube at the end, by which the gas is locally applied. The carbonic acid may be generated by chemical action in a bottle, and the gas conducted to the point of application by means of a tube inserted in the stopper; and for the application of the vapor of chloroform to any of the mucous surfaces, nothing can be more appropriate than the elastic douche apparatus, with well contrived valves, to be met with in the drug-stores. By means of this instrument the vapor may be applied to the uterus in dysmenorrhœa, cancer, and other painful affections, and it may be continued any

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length of time, either by the patient herself, or a nurse. But it must not be forgotten, that mere neuralgic pains of the uterus are much under the control of the saturated tincture of aconite, even when applied to the lower part of the abdomen and pubes, and also to the use of stramonium or belladonna internally.—*Jour. of Rational Medicine.*

Intoxication as a Cure for Hæmorrhage.—In a previously healthy woman, who has been suffering since fourteen days with profuse hæmorrhage from the mouth, asthma, constipation and purpura hæmorrhagica, all available means having been tried without success, and death being imminent, Dr. Faure induced and kept up alcoholic intoxication by giving every fifteen minutes a glass of old Bordeaux wine. Next morning the bleeding had ceased, and the other symptoms were also ameliorated. A scorbutic condition of the gums continued for some time longer.—*Gaz. des Hôp.; Amer. Med. Monthly; Cincinnati Lancet and Observer.*

Potassio-Tartrate of Iron in Rheumatism.—D. Willshire had under his care a somewhat pallid girl, with rheumatism of an eratic character, the pains flying about, as it were, to various parts of the body. To this she had been subject for three years, and nothing seemed to produce any marked improvement. She was therefore ordered a mixture containing the potassio-tartrate of iron, which produced a decidedly beneficial effect in a short time, the pains gradually diminishing and the health improving.—*London Lancet; Chicago Med. Examiner; Ibid.*

Cure of Vericose Veins.—Dr. J. F. Miner relates three cases in which he effected a complete cure by injecting into the internal saphena a solution of the persulphate of iron, two drops, diluted with eight drops of water, thus obliterating the vein. Phlebitis has never followed this operation, the pain is less than usually attends the ligature, and the recovery is more rapid.—*Buff. Med. and Surg. Journal and Reporter; Ibid.*

Perchloride of Iron and Ingrowing Toe-nail.—Dr. J. F. Miner corroborated before the Buffalo Medical Association the efficacy of this treatment. A few grains introduced by the side of the nail, between the free edge and the ulcer, was the most pleasant and efficient treatment he had ever seen adopted. He had used it in several mild cases with the greatest satisfaction; thought possibly it was better adapted to the early stages of the complaint, or to the milder degrees of irritation, inflammation or ulceration. One application was generally sufficient, when, in a few days, the condensed tissue might be removed, or, if allowed to remain, was productive of no injury; it would eventually separate, leaving a healthy surface.—*Buffalo Med. and Surg. Journal and Reporter; Ibid.*

At the annual meeting of the Medical Society of the State of Pennsylvania, a committee was appointed to inquire as to the expediency of publishing a Daily Medical Gazette.—*American Medical Times.*

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MARRIAGES OF CONSANGUINITY.—Dr. Devay, Professor of Clinical Medicine at the Medical School of Lyons, has just published an interesting work on the disastrous effects of marriages among relations. He shows that in fixing certain prohibited degrees of consanguinity, the Church in point of fact was only favoring the observance of one of the most important laws of nature, the infringement of which is punished with inevitable degeneracy. Unions within the limits of consanguinity are hurtful not only to the human race, but also to animals. It is true that such unions among the latter are promoted by the breeder for profit's sake—the Disley and Durham oxen, so admirable in the eyes of the breeder, are instances of this; but sterility is the usual consequence of this practice. In the human race two circumstances have contributed to favor marriages among relations—the first occurs when a small population is pent up in some remote hamlet not easily accessible. The second case is that of families desirous of maintaining their rank in society, or preventing the dispersion of their fortune by marrying within their own circle. Dr. Devay states that out of 121 marriages of this kind observed by him, 22 were barren. Only four of the number were marriages between uncles and grand-nieces—the others were between cousins or the issues of cousins. When sterility does not occur, the issue is diseased, or afflicted with blindness or deafness; also in many cases afflicted with irregularity of conformation. Of all these irregularities, polydactylism, or multiplicity of fingers, is the most frequent. Dr. Devay has observed this in 17 out of the 121 cases above mentioned. He states that in a certain secluded spot, where the inhabitants had no communications with other populations, polydactylism had become quite endemic, and that this strange anomaly disappeared some time after a new road had been cut through the place.—*Paris Correspondence of British Am. Med. Journ.; Boston Med. and Surg. Journal.*

A recent letter of Dr. Bidwell, at Ship Island, contains the following interesting account of the appearance of the bodies of two persons after lightning stroke.

"In the midst of one of the violent storms of this latitude, unknown at the North, when the wind was a gale and the rain a cataract, overturning or overwhelming a number of our frail habitations, a thunder-bolt descended upon our guard-tent, instantly killing three men, producing seirous internal injury to three others, rendering their recovery almost hopeless (though I am happy to add that their appearance has much improved this afternoon), and shocking more or less seriously some ten or twelve more—and a larger number slightly.

"I noticed on two of the corpses, this morning, the peculiar and beautiful arborescent appearance on the chest and abdomen, of lightning stroke. Had the accident happened under, or near a tree, I suppose some would have designated it as a photograph of the tree. As it happens that there was not a tree of any kind or size within at least two miles of the spot, nor anything resembling a tree, the hypothesis must be allowed insufficient for the case."—*Boston Med. and Surg. Journal.*

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Pharmacy.

VESICATING COLLODION.

Mr. Charles R. C. Tichborne, in the London Pharmaceutical Journal for April, 1862, discusses the subject of vesicating collodion, and offers a formula which he considers effective and worthy of adoption, as uniform and reliable in its action. The author remarks on the variable character of vesicating collodion as dispensed in London, owing to the fact that pharmaceutists have private formula differing from each other. Mr. T. thinks, in this preparation, the collodion should be associated with some substance like acetic acid, that will render it permeable by the active principle, which he esteems is not the case with collodion, basing his arguments on the conditions presented by a film of simple collodion on glass, which he examines. Now it is probable that vesicating collodion has been more used in the United States than elsewhere, mainly owing to the lower price of the vehicle; and the experience of American Pharmaceutists shows, that, if well made, the quantity of fixed oil which is withdrawn from the cantharides is sufficient not only to prevent, in a great measure, the contractile force of the film, but to so alter its consistence as to meet the conditions required by Mr. Tichborne. We will first give his remarks and formula, and then state in outline that adopted in the forthcoming United States Pharmacopœia. "First, then, let us examine the texture of a collodion film, to mark its applicability in the present case. If we pour upon a glass slide some recently prepared collodion, and then examine it by the microscope, it will present the following appearance:—a pretty homogenous and smooth ground, but running through which are slight ridges, which produce large honeycomb markings. These ridges are caused by the quick evaporation of the ether; the whole is interspersed with filaments of partially disorganized cotton in a semi-gelatinous state. However carefully the cotton is prepared, it is next to impossible to get rid of these fibres, some portion always escaping the perfect action of the acids. If we can add a small quantity of glacial acetic acid to the collodion, we shall find the character of the film greatly changed. From the slower evaporation, the honeycomb ridges are no longer palpable, whilst the solubility is so much increased that the filaments are found to have disappeared. This film is perfectly uniform, but it presents this peculiarity, that it gradually dries into a mass of jelly-like globules, which, however, possess but little cohesion; when dry, it is very short, for if the finger be run up the glass, instead of leaving it as a tough skin, it collects as a moist crumbled mass. Having so far seen that the glacial acid, besides destroying the contractility, gives it the properties of porosity and slowness in drying, it follows that such a collodion is particularly suited for the application of any vesicant which we may intend to apply, instead of being a varnish which hermetically seals up the active matters. Glacial acetic acid is one of the best direct solvents of cantharidin with which we are acquainted. Pure cantharidin was found to be very soluble in that acid, a saturated solution depositing

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it unchanged on evaporation in hard mica-like crystals. The principle, then, we propose is, to exhaust cantharides by a mixture of ether and acetic acid, and to convert these into collodion by the addition of gun cotton.

℞ Cantharides ..... ℥ vi.
Ether from methylated spirits ..... fl ℥ xiij. or q. s.
Glacial acetic acid ..... fl ℥ ii.
Gun cotton ..... ℥ ss.
*Methylated spirit of wine ..... fl ℥ vij. or q. s.

The cantharides, coarsely powdered, are placed loosely in a displacement apparatus, the flow of which can be regulated by a trap; upon this is poured the ether and acetic acid previously mixed together; after the whole has passed through, it will be found that the *debris* has retained by absorption seven fluidounces, which must be displaced by the gradual addition of an equal bulk of methylated spirits. If properly done there is not the least danger of the admixture of the spirits with the percolated menstruum, as the animal substance of the flies swells considerable under the prolonged influence of the spirits, so that the same bulk will be insufficient to quite displace the ether. The ethereal solution should then be made to measure exactly 15 fluidounces by the addition of a little spirit, and may then be converted into collodion by the addition of the gun cotton."

Mr. Tichborne, after asserting that the Mylabris cichorii may be substituted for the cantharides, (a fact well known to us here,) gives the following method of applying his collodion:

"The part upon which the vesicle is to be raised should be painted with the vesicant to the desired extent, bearing in mind that the blister produced always extends to about one-tenth of an inch beyond the margin of the space covered by the collodion. Care should also be taken that there is a considerable thickness of collodion upon the surface. To ensure this, the brush should be passed over and over again until about half a dram has been used to the square inch, or less when oppreating on a tender epidermis. It is desirable to cover the surface with a piece of oiled silk or sheet gutta percha, as it hastens the action of the collodion.

In ten minutes, or a quarter of an hour if the cuticle is hard, the collodion should be wiped off with a little cotton wool moistened with ether, when the blister will almost instantly rise."

In comparing the collodion of Mr. Tichborne with that in common use in the United States, almost the only difference is in the presence of acetic acid. Now, there can be but little doubt that the acetic acid in this preparation has a caustic action of its own, independent of the cantharidin, and it may facilitate the action of the cantharides; yet as to the necessity of this aid, or of that other influence it exerts on the consistence of the collodion, there is abundant reason to doubt, unless it be required to effect the vesicoation in the short-

*Methylated spirits is common alcohol mixed with a certain portion of wood spirit or methylic alcohol to prevent its internal use, and in which condition the excise duty is greatly reduced with a view to its use in manufacturing.

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est possible time. From Mr. T.'s statement of the time required, we believe his vesicant is quicker in its action than that in use here, but in no other respect does it appear to us improved, whilst the cost is increased. We would also suggest that it is a mistake to use the cantharides in *coarse* powder, and that the quantity of menstruum used by Mr. T. is insufficient to thoroughly exhaust the flies. With these remarks we will offer the recipe which was provisionally adopted by the revising Committee of the U. S. Pharmacopœia.

℞ Cantharides, in fine powder..... ℥ viij.
Cotton, prepared as for collodion, [gun cotton].....100 grs.
Ether ..... .q. s.

Pack the cantharides firmly in a percolator, cover it with muslin and pour on ether until fourteen fluid ounces have slowly passed. Dissolve the gun cotton in this liquid, set it aside, and continue the percolation until eight fluidounces more of the ethereal liquid is displaced, which is to be evaporated till it measures two fluidounces. Lastly, add this to the first liquid and mix thoroughly. If after standing 24 hours a sediment should be observed, decant the clear collodion, which should possess a decided green color, and preserve it in a close bottle.—*Am. Jour. of Pharmacy.*

CHLORIDE OF LIME AS AN INSECTICIDE.

In scattering chloride of lime on a plank in a stable, all kinds of flies, but more especially biting flies, were quickly got rid of. Sprinkling beds of vegetables with even a weak solution of this salt, effectually preserves them from the attacks of caterpillars, butterflies, mardella, slugs, &c. It has the same effect when sprinkled on the foilage of fruit trees. A paste of one part of some fatty matter, placed in a narrow band round the trunk of the tree, prevents insects from creeping up it. It has even been noticed that rats and mice quit places in which a certain quantity of chloride of lime has been spread. This salt, dried and finely powdered, can, no doubt, be employed for the same purposes as flour of sulphur, and be spread by the same means.—*Chem. News, London, from Dingler's Polytechnisches Journal: Ibid.*

MIXTURE FOR ULCERATION OF THE GUMS.

By Dr. Angelot.

Take: hypochlorite of lime, from ten to twenty-five grains; mucilage of gum Arabic, from one and a half to four drams; syrup of orange-peel, from one and a half to two drams. Mix thoroughly and wash the gums with it.—*Amer. Drug. Circ. and Chem. Gaz.; Cincinnati Lancet.*

DESCHAMPS' PASTILLES.

Take: dry hypochlorite of lime, two drams; sugar, eight and a half ounces; starch, eight drams; gum tragacanth, one dram; carmine, two and a half grains. The pastilles should be made so as to weigh about two and a half grains. Five or six may be taken in the space of two hours, for disinfection of the breath.—*Ibid.*

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ANGELOT'S PASTILLES OF HYPOCHLORITE OF LIME.

(*a.*) Take: hypochlorite of lime, seven drams; sugar flavored with vanilla, three drams; gum Arabic, five drams. Make into pastilles to weigh from ten to eleven grains. Two or three of them are sufficient to remove from the breath the odor of tobacco smoke.

(*b.*) Take: dry hypochlorite of lime, twenty grains; pulverized sugar, one ounce; gum tragacanth, sixteen grains. The hypochlorite is triturated in a glass mortar, and a small quantity of water is poured upon it; it is then left to repose, decanted, and a second quantity of water added; the two liquids are filtered, and the gum and sugar added so as to form paste. This is divided into pastilles weighing from twelve to sixteen grains. If it is desired to aromatize the paste, one or two drops of any essential oil may be added to the sugar and gum before the paste is formed.—*Amer. Drug. Circular and Chem. Gazette; Cincinnati Lancet and Observer.*

Editorial.

Cholera Morbus and Infantum.—Dr. N. E. Satterlee, of Cambria, Columbia County, Wis., sends us the following formula for cholera morbus and cholera infantum:

℞	Acet. Lead	1 grain.
	Morphia	¼ "
	Gum Camphor	3 "
	Piperin	3 "

Mix, and make into four powders. Dose—a powder every four hours, until relief is afforded. Two to four doses will check all vomiting and purging. Follow with a mild cathartic.

Berkshire Medical College.—The fortieth annual course of lectures in the Berkshire Medical Institution will commence on Thursday, August 7th, 1862, and continue sixteen weeks. The Introductory Lecture will be delivered in the Chemical Hall of the College, by Prof. W. H. Thayer.

The Trustees and Faculty promise to those who shall become students in this Institution, thorough instruction in every department. The College building, for the erection of which a liberal grant was bestowed by the State, is one of the finest buildings devoted to purposes of medical instruction in the country, and a witness to the fostering care which Massachusetts exercises over her educational institutions.

The Institution has heretofore ranked in its faculty those who have been, and those who still are, lights of medical science in our country, and it is the endeavor of those who now hold the several chairs that the School shall not do discredit to its reputation, nor fall short of the strictest requirements of the profession, nor fail to keep pace with the progress of an art which no longer rests upon a basis of tradition.

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Narcotics.

BY JOSEPH BATES, M. D.

Atropa Belladonna.

This plant, according to the Linnean artificial classification, belongs to class Pentandria, and order Monogynia. Natural order, Solaneæ.

Generic Characters.—Corol bell-form; stamens distant; berry globular, two-celled, sitting on the calyx.

Specific Characters.—Perennial; corolla monopetalous, with the limb divided into five lobes, dark dull purple in the border, paler downward. Stem herbaceous, brachiate; leaves ovate, entire, acuminate, of a dull green color, mostly in pairs of unequal size, and on short petioles. Berries black, round, two-celled, transverse furrow on each side, at first green, then red, and when ripe, of a deep purple color, containing numerous reniform seeds, imbedded in a soft pulp, with a sweetish, violet-colored juice.

Botanists have at times called this plant Solanum maiacum, S. somniferum, S. lethale. It is known in different localities by the popular names of deadly-nightshade, dwale, etc. Its native country is Southern Europe.

History.—It is spoken of as one of the indigenous poisonous plants of Great Britain.

We have no evidence that belladonna was known in medical literature, previous to the sixteenth century. From that time till

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about the middle of the seventeenth century, it was chiefly referred to by writers as a poison, under the name of Solanum furiosum, a title derived from the peculiar delirium which it occasions when taken in excessive doses. Dr. PARR says that the ancients called the disease brought on by eating this plant strychnomania.

Action on Animals.—PERREIRA states that blackbirds eat the berries of belladonna with impunity. Herbiverous animals eat any part of the plant without injury to themselves. Rabbits have been fed for a month exclusively on belladonna leaves, without harm.

On Man.—When taken in too great a quantity, giddiness, like that of intoxication, occurs; thirst, difficulty of swallowing, dilatation of the pupils, dimness of vision, partial deafness, confusion of ideas, delirium, or fatuity, painful deglutition, and retching, followed by convulsions. The face becomes red and tumid, the mouth and jaws spasmodically contracted, the sensibility and irritability are so much diminished, that the stomach often bears large and repeated doses of tartarized antimony without any effect; the whole nervous system becomes prostrate and paralyzed. A feeble pulse, cold extremities, subsultus tendinum, deep coma or delirium, and sometimes convulsions, precede the fatal termination. Dr. PARR says "notwithstanding these effects, a prudent use of this plant has been recommended." He adds, "the leaves applied in the form of a cataplasm are supposed to relieve cancers; and infusion of the leaves is commended as an internal medicine in cancerous cases; but on trial does not appear to deserve the encomiums. The doses are very small, and their effects various and uncertain. Sometimes it purges, at others runs off by the kidneys, or through the skin, and often no evacuation takes place. Those who took the infusion suffered by giddiness, throbing pains in the eyes, a discharge of tears, and a dilatation of the pupil."

Mr. GATAKER observes, that it is a medicine chiefly calculated for particular cases where the common remedies have failed, and where this seems, upon trial, to be free from the inconveniences which so often attend its use.

Dr. CULLEN informs us that he has seen a cancer in the lip cured, and a scirrhosity in the breast removed, by the use of this remedy. Great service, he adds, has also been derived from its use in a sore a little below the eye, which resembled cancer. He used it externally. These remarks are chiefly interesting, as show-

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ing the opinions of authors relative to this plant, over half a century ago.

In the Medical Repository, Vol. 6th, p. 391, may be found a published letter from G. KNAUFF, M. D., to Dr. MITCHILL, one of the conductors of the work, relative to the use of belladonna in treatment of hydrophobia. The letter is dated Albany, Jan. 15, 1802. Dr. K. recommends the use of the powdered root. His opinion is, that the medicine is useful in this disease, chiefly by inducing perspiration. He remarks that, "there are some persons who hardly ever can be brought to a perspiration, and with whom the belladonna, though taken in the strongest doses, has no effect in that way. With such persons it will commonly occasion a considerable swelling on the part infected with the poison. This swelling will appear principally with the first dose; with the second it diminishes; and with the third it entirely disappears. Sometimes a traction will appear in the wounded part during the use of the belladonna. This traction must entirely cease before the medicine can be discontinued. As soon as possible, after the person is bitten, a dose of the pulv. rad. belladonnæ is to be given internally; after 48 hours a second dose; and after 48 hours more a third. If, during the operation of the third dose, some swelling still appears on the wounded part—the traction therein has not entirely ceased and the wound is not dry—a repitition of the belladonna, with five doses this time, is prescribed, after an interval of 72 hours, in order to give some time to the patient for recovery; to be administered every second day, like the first three doses. Should it happen that the medicine operates too powerfully on the patient, so that he cannot recover himself on the second day, a dose may be directed every third day; but this must not be done unless required by necessity.

"The powder is to be taken with a little broth, or the like, when the patient is to go to bed, and the dose will operate. If a dryness in the mouth and throat appears, some cold water or milk may be taken; and if he is inclined to sleep, he may without molestation. On the following morning, if the powder has been taken in the evening, he may have some warm tea, and remain in bed some hours longer for the promotion of sweat. Should the first dose occasion a diarrhœa, the second is not to be administered until that ceases.

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"If a weakness of the eyes appears, or a *diplopia*, they are not to be strained by reading, &c. If the symptoms of hydrophobia appear, notwithstanding the use of the belladonna, or if it has not yet been administered, increased doses must be continued, in case the first or second should not arrest those symptoms. The patient must be kept in bed, plenty of sweet-milk given him if he can yet swallow, and blood drawn from the foot. If a perspiration succeeds, the paroxysm will soon be at an end.

"The dose must vary according to the age, constitution and disease* of the patient. A weakly person requires always a deduction of some grains from the ordinary dose. The following will precisely fix the dose for a strong and healthy person, of robust constitution; supposing the disease to be occasioned by the bite of a rabid animal.

"To a child one year old, one grain of the pulv. rad. belladonnæ is to be given in breast-milk, for the first dose; the second and third are to contain one grain and a half each. It may take the breast, during the operation of the medicine, as often as it pleases.

"At this period children will generally be red-colored over the whole body. A child of two years of age requires two grains for a dose;—of three years, the first dose two grains, the second and third from two and a half to three grains. From four to five years of age, the first dose two and a half grains, the second and third three, three and a half, and four grains. A child of six or seven years old, the first dose four grains, the second four and a half, and the third from five to five and a half grains. From eight to nine years, the first dose four and a half, the second and third from five to six grains. From ten to eleven years, the first dose five grains, the second five and a half, and the third six and a half. At the age of twelve or thirteen years, the first dose six, the second seven, and the third eight grains. From fourteen to sixteen, the first dose six and a half, the second seven and a half, and the third eight and a half grains. From the age of seventeen to fifty years, the first dose ten, the second twelve, and the third

* I think it necessary to mention, briefly, that the belladonna is recommended in several other diseases; in some of which, as hysteria, mania, melancholia, and obstructions, I have administered the pulv. foliorum belladonnæ several times, with good success. The dose of the folia, in such cases, is from two to five grains.

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from thirteen to fourteen grains. Women generally a little less. From fifty to sixty, the first dose six, the second eight, and the third nine grains. From sixty to seventy, the first dose four or five, the second and third from six to seven grains. From seventy to eighty, the first dose three, the second and third four grains. For a woman who nurses a child, the first dose is three, the second four, and the third five grains.

"But in order to be convinced that the above fixed doses are suitable to the age and constitution of the patient in every particular case, it is necessary to notice whether the first dose occasions a very profuse sweat, or whether that part, in case the sweat does not appear, to which the poison has been communicated, swells up very much. If the one or the other appears, it is only necessary to continue the above-mentioned increasing doses; but if this does not happen, they must be augmented. In general, the first dose has a stronger operation than the succeeding ones, notwithstanding their being increased, as above directed.

"If the first dose operates so harshly that the patient does not fully recover on the following day, the second dose is not to be increased.

"The pulv. foliorum belladonnæ has been administered with the best success in the bite of the viper (vipera). The dose is, in this case, for robust persons from sixteen to fifty years of age, from five grains, increased by degrees to nine, every twenty-four hours."

The active principle of this drug is absorbed by the skin. Dr. LYMAN applied a belladonna plaster, two by four inches, to the chest of a nervous female, and it produced all the usual symptoms of poisoning by this agent, including a reduction of the pulse to twenty-eight in a minute. The symptoms did not all subside until four or five days. Dr. JENNER states (as quoted by STILLE) that a belladonna plaster, six by nine inches in size, having been applied to the loins of a man where the skin was affected with minute pustules and ulcers, he was seized with an urgent desire to urinate, and great loss of power in the lower limbs, articulating continually, but uttering no sound. The pulse was full and strong, and between 80 and 90. A case is reported in which a small dog, applied to the breast of a nursing woman who had taken a poisonous dose of belladonna, was instantly attacked with spasms.

Effects on the Nervous System.—(As given by STILLE.) A sense

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of tightness or pain is first felt in the frontal region and in the eyes, there is confusion of thought, with giddiness, a feeling of intoxication, and noises in the ears. The sight becomes confused, and objects are seen as through a mist, or they are mistaken for others very different. Spectral illusions are not unfrequent. They are usually of a pleasing character: images of diamonds and other precious stones, flashes of many colored lights, birds of brilliant plumage, and insects with enamelled wings. Occasionally there is total blindness, even of several days' duration. The mind is agitated and excited by a train of extravagant ideas; there is often decided delirium, and nearly always of a gay description, which either prevents sleep entirely or permits only broken slumbers disturbed by fantastic dreams. It is remarkable that the patient may be quite conscious of his visual illusions and his delirium, but without having the power to prevent the one or control the other.

In certain cases familiar persons around the patient are not recognized, and are called by wrong names, the old decrepit are addressed as young and beautiful, and even inanimate objects are mistaken for one another. This singular delirium has been compared to somnambulism.

It is recorded of a tailor, who had used an injection of belladonna, that he remained on his shopboard for fifteen hours, sewing with great apparent earnestness, using all the gestures which his business requires, and moving his lips as if speaking, yet the whole of the time perfectly insensible. Dr. SIMPSON mentions a lady who, under the influence of an overdose of belladonna, appeared as if in the act of dressing her hair for hours. Some of the most frightful cases of suicidal and destructive impulse are declared to have had their origin in the use of belladonna, where a predisposition to insanity existed. It is asserted that when tic douloureux has been suddenly stopped by belladonna, this form of madness was developed. A remarkable fact observed in some cases of poisoning by belladonna, is the degree of anæsthesia which it produced. Of this a striking example is afforded by a man who swallowed, by mistake, an enormous dose of the watery extract of this plant. For several days the skin remained so insensible that it could be pinched or pricked without pain. In most fatal cases, sopor succeeds delirium, or may even occur without

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being preceded by excitement; there is muscular relaxation, a red and tumid face, injection of the conjunctiva, and a frequent or else very infrequent pulse. In some cases, convulsions are the immediate precursors of death. But in poisoning by belladonna narcotism is the exception, not the rule.

Effects on the Muscular System.—It manifests its influence alike, upon the voluntary and involuntary muscles; this may be apparent in the voluntary, in the staggering and unsteady gait; or in the use of his hands, whose motions he is unable to control; also in the convulsive movements of the system. In the involuntary it is soon apparent, by the largely dilated pupil; by its effect upon the heart and lungs, &c.

Effects upon the Circulation and the Secretions.—Belladonna in large doses produces obvious effects upon the heart and blood-vessels. The pulse is very variable, sometimes frequent, at other times slow; during the stages of its operation bounding and full, but afterwards falling below the usual standard in strength and frequency; in fatal cases it becomes very frequent, intermittent and thready. Dr. STILLE has taken from the N. Y. Jour. of Med., Vol. 5, p. 184, the description that Dr. GRAY furnished, of an overdose of this drug upon himself. There was an injected condition of the conjunctival vessels, and total absence of lachrymation, motion was attended with a sense of dryness and stiffness. The face was red and turgid, and the temperature and color of the surface considerably augmented. The pulse full, and form 120 to 130. The sensation in the head was that of violent congestion, a full, tense, throbbing state of the cerebral vessels, the same feeling as would result from a ligature about the neck, and impeding the return of the venous circulation. The tongue, mouth, and fauces, were devoid of moisture. The secretions of the glands of the mouth, and the saliva, were entirely suspended. A draught of water instead of giving relief, seemed only to increase the unctuous, clammy state of the mucous membrane. About the pharynx this sensation was most distressing. It induced a constant attempt at deglutition, and finally excited suffocation, and spasms of the fauces and glottis, renewed at every effort to swallow. The power of belladonna over the secretion of urine seems very great. Dr. GRAY was confident that he passed in the course of an hour three pints of urine, accompanied with a slight strangury at the neck of

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the bladder. Irritation of the scrotum has been alleged to occur as an effect of the internal administration of belladonna.

A Scottish physician, Dr. GRIEVES, states that he has completely dispelled the phantasms of delirium tremens by merely rubbing the extract of belladonna upon the eyelids.

Remedial Employment.—Tumors.—It is believed that, both belladonna and stramonium possess a real efficacy in discussing glands enlarged by chronic inflammation.

EVERS, AUTENRIETH, DALRUC, and CHEVALIER, have given very decided testimony in favor of its resolvent powers in engorgements of the breasts, and in scrofulous tumors and swellings of the joints; they employed it both internally and externally.

In Braithwaite's Retrospect, Part 38, p. 175, belladonna is spoken of in the form of an ointment, as a convenient application to carbuncles or boils.

In the Boston Med. and Surg. Journal, Vol. 48, p. 328, under conclusion 7th, DUBOIS says that belladonna alleviates more than any other remedy the pains of cancer, and cures sometimes, if not cancer, diseases closely resembling it. His 9th conclusion is, that belladonna is of real efficacy in some cases of strangulated hernia. DUBOIS, 13th conclusion is, that belladonna should be placed in the first rank of medicinal substances.

Neuralgia.—Dr. STILLE remarks that "belladonna as an internal remedy for neuralgia appears to have been first employed by Dr. BAILEY, who reports sixteen cases observed by himself in which the trigeminus nerve was severely affected, and which were greatly relieved or permanently cured by the extract of belladonna given in doses of one grain every sixth hour, or oftener when the pain was intense. M. TROUSSEAU, after remarking that it has frequently been employed successfully in the treatment of neuralgia, states that his mode of administering the extract for this affection is to direct one-fifth of a grain to be taken every hour, until vertigo is produced. The frequency of the doses is then to be diminished, but their impression ought to be maintained for several days, or until no trace of the attack remains. The success achieved by Dr. BAILEY does not appear to have created many imitators of his practice either in England or in this country, although it has long been in vogue upon the continent of Europe. Indeed, so lately as 1843, Dr. HUTCHINSON, of Nottingham, speaks of the method

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as a new one in his own country, and adduces seven cases of well-marked facial neuralgia in which it alone effected a cure. Dr. HUTCHINSON prescribed the extract of belladonna three times a day, begining with one quarter of a grain and gradually increasing the dose to one grain, or until the iris betrayed the specific influence of the medicine. Other forms of neuralgia do not appear to be nearly as much as the facial variety under the control of belladonna internally administered; while all forms of the disorder have been found to yield to the application of this remedy upon the unbroken skin, when the affected nerve is superficial, and so its contact with the derm, when the nervous trunk is deep seated. For this reason, and also, doubtless, for the purpose of avoiding the unpleasant constitutional effects of the medicine, the endermic method of treating neuralgia with belladonna has been preferred."

A case is published in the Boston Med. and Surg. Journal, Vol. 30, p. 288; the physician had used this drug, in cases of anomalous pains, of which he could not well tell the origin, and in one case he says in particular he had made a lucky hit, for he could not call it anything else. An old lady, who had a curious pain at the back of the shoulder, from which she had been suffering several months, was relieved by belladonna in forty-eight hours.

COPLAND speaks favorably of belladonna in neuralgia. He says on p. 1024, we regard belladonna as one of the most successful remedies for the relief and cure of this obstinate class of diseases. Some recommend it to be given in combination with quinine, or with preparations of iron, or to exhibit these after the narcotic effects of the belladonna had become manifest. SIEBALD, THOMPSON, and DELEAU have recommended it to be employed both internally and externally. PEREIRA considers it inferior to aconite in this disorder. WATSON barely alludes to belladonna in the treatment of this disease, and says sometimes it relieves the pain.

Dr. HUNT has an excellent paper on this disease in Braithwaite's Retrospect, Part 10, pp. 18, 19, 20, 21, and 22. He is most partial to belladonna, and the largest quantity he has given has not exceeded one-grain for three successive hour. Before the third dose is given, he thinks the patient should be visited. When a decided check has thus been given to the pain, smaller doses, Dr. HUNT finds, keep both the pain and morbid irritability under con-

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trol; a third, a half, a grain, once, twice, or three times every day, gradually diminishing the dose as the case improves. The patient should be instructed to take a dose at any time when the pain threatens to return.

The author has treated this disease very satisfactorily by giving one-half a grain of belladonna, made into a pill with one grain of carbonate of iron, and repeated once an hour until the dilatation of the pupil betrayed the specific influence of the drug upon the system; then diminish the dose gradually, keeping up a slight impression upon the system, and maintaining it for several days, or until all traces of the disease are subdued. Frictions with a solution of belladonna (℥j of the extract to ℥j of water) were first used successfully in sciatica by Dr. TODD, and more recently HIRIART and others have employed different preparations. Dr. HUTCHINSON and many others denude the cutis by means of a long narrow blister over the course of the sciatic or the anterior crural nerve, as the case may be, and dress it with an ointment composen of one-eighth, or less, of the extract to one pound of lard. In obstinate cases of sciatica, which have resisted the plan already indicated, an expedient remains which has been found successful by TROUSSEAU and others. This consists in establishing an issue between the tuberosity of the ischium and the great trochanter of the thigh-bone, and dressing the sore with the extract of belladonna.

Atropa has been used by inoculation in various affections of a painful character, and especially for the relief of neuralgia. It has truly been said, that every local painful affection may be palliated by the due application of this anodyne. The extract may be mixed with oil, alcohol, or water, for the purpose of friction, or may be more permanently applied in cataplasms or plasters. These external appliances are not always without danger. Dr. J. C. WILLIAMS remarks that he has known impaired vision and partial hemephlegia to result from rubbing a solution of the extract upon the forehead of a lady. Mr. WADE reports a case of poisoning by belladonna plaster, not more than two inches square, applied over an eruption of psoriasis on the front of the wrist. The physician should be aware that extraordinary susceptibility exists in some patients to the action of belladonna.

Dr. STILLE remarks that "the danger to life may not indeed be

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very great, but it is always desirable to avoid alarm and distress which accidents occasion." The same author says: "Another occasion for the local application of belladonna is presented by that painful and troublesome affection known as irritable uterus, and which is in fact a neuralgic condition of the organ." It may be successfully combatted by using a vaginal injection of the extract dissolved in water, three or four times a day; or, according to M. Trousseau, when accompanied with ulceration of the os uteri and with leucorrhœa, by means of one or two grains of the extract along with six or eight of powdered tannin, rolled in cotton wadding, and placed in contact with the affected part. The wad of cotton should be secured by means of a thread, accessible from without, and be freshly applied every night, after cleansing the passage with a detergent injection.

In Braithwaite's Retrospect, part 15, p. 62, LIPPICH speaks of a preparation which he has used: one part extract of belladonna to thirty-five parts of mucilage of gum arabic. This mixture is spread over a blistered surface; and in one case (one of neuralgia of the cœliac plexus), the application was persevered in for seventeen days. The cases besides in which he has been successful by this method are rheumatic lumbago, rheumatic cephalalgia, and thoracic rheumatism.

In Braithwaite's Retrospect, part 21, p. 78, M. DEBREYNE relates several cases of the employment of belladonna in neuralgia. One patient had suffered during seven or eight years, from very severe neuralgic pains in all parts of the head. All the usual remedies had been tried without effect; a pomade of belladonna was applied, which produced marked relief on the first day, and cured the patient in a month. Another case was one in which daily paroxysms of frontal neuralgia had obstinately continued for eleven years. The belladonna pommade was applied: the pain suddenly ceased, and had not re-appeared two months after the employment of the remedy. The pommade which M. Debreyne uses is highly charged with the active principle. It consists of extract of belladonna and lard, of each twelve grammes; opium, two grammes; to be mixed accurately. It is rubbed over the seat of the pain, especially during the excerbations, or three times a day. On each occasion, a piece of the size of a hazel-nut is to be rubbed in for five or six minutes, until it is perfectly ab-

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sorbed; this may be furthered by adding a little saliva from time to time.

Spasmodic Diseases.—Belladonna relieves the pain consequent upon spasm of the sphincter ani muscle. DUPUYTREN first employed this remedy in an ointment, combined with acetate of lead, and presumed that its efficacy depended upon its direct power of preventing constriction of the sphincter.

Dr. KING remarks that belladonna is exceedingly valuable and useful in convulsions, spasms, epilepsy, puerperal convulsions, neuralgia, hooping-cough, chorea, mania, paralysis, amaurosis, rheumatism, gout, dysmenorrhœa, obstinate intermittents, rigidity of the os uteri, and all diseases in which the nervous system is involved.

Spasm of the urethra is also stated to have been overcome, so as to permit the escape of calculi from the bladder, by means of friction with extract of belladonna upon the perineum. "Here," says STILLE, "it is evident that the remedy must have been operative mainly through its power of diminishing the irritability of the passage, which, when excited by the presence of the calculus, induced a spasmodic tension of the urethral muscles."

Incontinence of Urine.—MORAND, TROUSSEAU, BLACHE, BRETONNEAU, BROOKE, HUTCHINSON, A. HEWSON, and CONDIE, attest to its efficiency in curing this infirmity. It is supposed to blunt the sensibility and allay the spasmodic action of the neck of the bladder, and thus prevent the call of nature until a due amount of urine has accumulated.

In Braithwaite's Retrospect, part 38, p. 162 (copied from the Med. Times and Gazette, July 31, 1858, p. 114), is the following: "The use of belladonna against incontinence of urine in children, as strongly recommended about a year ago by Mr. BROOKE, of Westminster Hospital, has, we believe, well borne the test of the trials which his laudation of it induced. Several surgeons have, we know, formed most favorable opinions of its efficacy. A case under Mr. HUTCHINSON'S care, at the Metropolitan Free Hospital, about three months ago, afforded very conclusive evidence of its power. The patient was a boy of ten, who had from infancy been exceedingly troubled by inability to retain his water. Nightly incontinence was a matter of rule, and very often the urine would escape during the daytime also. Nux vomica, sesquichloride of

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iron, etc., had been fairly tried, and without benefit. At first the belladonna seemed to do no good, but being pushed until symptoms of poisoning were apparent, it finally effected a complete cure. The bladder appeared to have wholly lost its morbid irritability, and during six weeks that the boy remained under observation, his mother stated that no single instance of incontinence had occurred. The remedy was given in solution in water, and without any adjuvant whatever. * * * Belladonna is one of our remedies which certainly deserves a more thorough clinical investigation of its powers than it has yet received."

In part thirty-sixth of Braithwaite is another case in point, by G. B. MASPEN, Esq. The patient had, at various times, been under treatment for this disease, with little or no benefit, except from such preventive measures as abstinence from drink in the after part of the day. "I prescribed an anodyne alkaline mixture, with an occasional drastic aperient, till having seen Mr. Brook's case in the British Med. Journal of Feb. 21st, I ordered, on Feb. 28th, one-twelfth of a grain of extract of belladonna to be taken three times a day, when a marked improvement immediately commenced, which continued till after having the medicine for twelve days, there was no more appearance of the symptoms. He continued under the same treatment till March 21st, when I discharged him apparently cured." [TO BE CONTINUED.]

[From the Buffalo Med. and Surg. Jour.]

On the Treatment of Tetanus.

By J. F. NORTON, M. D.

FORT EDWARD, June 20, 1862.

While looking over my notes upon practice, taken in south-western Georgia, within the last three years, and up to the commencement of the present rebellion, my attention is particularly called to the successful treatment of some five cases of tetanus, by equal proportions of chloroform and sulphuric ether.

Thinking perhaps a brief detail of the treatment of these cases might be of some service to many readers of the "Buffalo Medical and Surgical Journal," I take great pleasure in presenting them through its medium. There can exist no doubt that this formidable affection is a disease peculiar to a tropical climate, where it is no respector of persons, age, nor sex, except, perhaps, it may be more prevalent among the negro than the white population; and this, I think, arises not so much from constitutional predisposition as from the greater exposure to wounds of the feet, and bites of venomous insects, &c.

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The profession have long been laboring to find a reliable remedy or cure for this disease, but, alas! have failed, except, perchance it may prove to be the ones now under consideration. Indeed I am aware that chloroform has already found great favor with many able authors, as a cure for tetanus, and previous to my visit South I well knew that it had its admirers and supporters, while many others, together with some of our schools and hospitals, as earnestly denounced it as unsafe, and particularly unwarrantable in its use, in all cases of a turbercular diathesis. Whatever distrust I might have entertained of its almost indiscriminate use in some of our Northern hospitals, I soon lost it in the South, where I found it not only used by all physicians, but by the planters themselves, whose medicine chests as invariably contained chloroform as they did quinine.

Case 1st. Was that of a young negro who came into town during the day with a load of cotton; while at the ware-house he was observed to fall from a cotton bale upon which he was sitting, and was supposed to be in a dying condition. I saw him in twenty minutes later, found him *opisthotnos;* his body curved, and resting upon the heels and back of head, eyes partially closed, pupils contracted, breast heaving laboriously, with a rhoncus rattle of the chest and throat. His arms were drawn up and rigid with spasm, a mere fluttering of the pulse, the joints firmly closed, trismus complete. Being unable to get anything down him, I hastened to procure a mixture of chloroform and sulph. ether, equal parts. I returned in ten minutes; he had been removed to a room; the mucous rattle now seemed to threaten suffocation; while quantities mixed with blood was forced from his mouth and nose. I instantly applied the sponge to his nose, saturated with perhaps two drams of the ether mixture. The first effect was a sudden convulsive movement of the whole body, which soon lost its curvature, and dropped upon the floor; the rattling and heaving of the breast began to abate, and the arms fell powerless by his side. In less than five minutes he seemed entirely relieved, and his eyes appeared closed in heavy sleep. I now found the trismus sufficiently yielding to enable me to get down twenty grains calomel and five morphine. I withdrew the sponge, occasionally re-applying it for few seconds at a time, until all symptoms of spasm had disappeared, he sleeping soundly. The breathing was now free from rattle, the inspirations slow, and full; pulse distinct and firm. I left him with orders to get oil and turpentine in equal parts in four hours. I saw him the following morning. The oil had passed off freely. He had no recollection of what had passed, felt weak, otherwise quite well. He returned home, and speedily recovered, upon tonics and anodynes.

Case 2d. Was a white man, aged forty years, who eight days previous received the contents of a musket loaded with buck-shot, in his right side, arm and hand. Two of his fingers were amputated by his attending physician. I found the man looking ghastly pale, eyes sunken, the pulse 140, low and tremulous. The whole body was bathed in a clammy sweat. He tried to articulate, but could not, nor could he swallow, the masticatory muscles were rigid. He had complained, the day previous, of stiffness of the neck, burning sensa-

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tion in the throat, with some difficulty in swallowing, pain and twitching of the wounded arm and hand. These symptoms continued to increase until they presented all the phenomena of traumatic tetanus. His bowels were tender under the hand. The wounds presented an ashy, dry, gangrenous look. I soon brought him under the influence of the ether mixture, and with the happiest results. The breathing which was before hurried and difficult now became tranquil, pulse firmer and less frequent; in fact the tetanic symptoms gradually subsided. The masticatory muscles having become sufficiently relaxed, I soon administered my *favorite* prescription, twenty grains calomel, with all the morphine I thought he could bear. I soon left him sleeping, with instructions to give oil and turpentine, equal parts, early the following morning, it being now night, and should the spasms return, to call me. When I saw him in the morning the bowels had been relieved of copious, dark and offensive evacuations, and much of the tenderness. I now gave him quinine and wine, together with anodynes. The day following he was stronger, could swallow well. The wounds looked brighter, and were moist, with healthy suppuration.

On the fourth day, being the eleventh from the accident, he complained of slight stiffness of the neck, with burning in the throat. Being fearful he might get a return of spasms, I ordered him, through the day, teaspoonful doses of the ether mixture; this dispelled all tetanic symptoms, and they did not return. He recovered upon tonics and anodynes.

My third and fourth cases were blacks, which I will not detail at length, merely stating that they both proceeded from incised wounds; one of the head, the other of the foot. They both recovered with no alterations in the previous plan of treatment, except the administration of croton oil, in the latter case, owing to great torpidity of the bowels.

Fifth, and last case, was a white man, aged forty years, of intemperate habits. He received a wound in the hand while attempting to grasp a drawn knife from his adversary. The superficial palmar arch was divided, from which he had lost much blood before I saw him. I succeeded in securing the vessel, by compression upon both ends. The following day I was called in haste, the messenger stating, to use his language, that his master "had gone ded in de fit." Upon coming to his bedside, he appeared more like one in a heavy nightmare, contracted features, eyebrows and forehead corrugated, jaws firmly closed, the general expressions were changable, sometimes presenting the true *risus sardonicus* of authors, his limbs were rigid, and the eyes sunken, pupils contracted, pulse very feeble. He was soon brought under the influence of the mixture, when the face quickly lost its convulsive features, and the tetanic symptoms began to mitigate, and in three minutes he appeared sleeping. The trismus in this case, however, did not yield as readily as those previous, but the cervical and masticatory muscles gradually gave way, and I gave him twenty grains calomel and morphine, all he could bear; this, as usual, was followed with oil and turpentine at proper time, which passed off freely relieving him. He complained on the following day of slight twitching of the wounded hand, with cramping; this was relieved by a few doses of the mix-

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ture, taken internally. I ordered him quinine with wine. In a few days he was fully restored.

Since my return North I have been in the habit of using chloroform and ether in convulsions of children, and with the best of success. I have seen also, tetanus cured in two horses. I merely state these cases to show my experience in the use of these articles.

In conclusion, I will remark first, that the great difficulty in the way of curing tetanus, is trismus. 2d; That chloroform and sulph. ether will, if properly administered, sufficiently relieve the spasmodic contraction of jaws and throat, to enable the physician to employ internal remedies. 3d; I have no doubt that these valuable anæsthetics will, of themselves, cure most, if not all, cases of this disease, by their judicious use, both by inhalation and internal administration. 4th; That the most reliable or effectual plan of treatment, is to assist them by internal remedies as soon as they can be given, and these remedies are calomel and morphine, in full doses, followed with oil and turpentine; afterwards the tonics and anodynes, quinine and morphine.

The chloroform and ether should be used in equal proportions, to be successful, and administered without fear; first, knowing the patients constitution; and secondly, what we want to effect with it.*

Treatment of Nervous Headache by Hydrochlorate of Ammonia.—Hydrochlorate of ammonia has been lately recommended by some English physicians in certain cases of headache and obstinate neuralgia, and Dr. Barrallier, physician of the navy at Toulon, has made some observations confirming the beneficial effects of this salt in some of the painful affections of the head. He met with varying success, however, some of the cases seeming not to be amenable to treatment. The conclusions he has drawn are:—1. That the mixture containing hydrochlorate of ammonia almost constantly dissipates the fits of idiopathic headache, and of that which is consecutive to an unusually abundant menstruation. 2. That it is powerless in relieving fits of hemicrania dependent on irregularity or suppression of menstruation. 3. That its use has been attended with pretty good results in cases of cranial pain dependent on functional derangement of the stomach, and also in accidental nervous headache. 4. That it has relieved headaches consecutive upon reiterated attacks of intermittent fever, such as are observed at the decline of severe fevers, and in the course of the period of irritation of typhus. 5. That its action in not remarkable, except when it is given at the period when the pain is most intense.—*Bulletin General de Therapeutique; Journal of Rational Medicine.*

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* Note.—The conclusions of the author do not correspond fully with the experience of physicians at the North who have used anæsthetics in tetanus. We cannot regard the value of calomel as established; and have recently seen a child suffer the severest tetanic spasms while yet fully under the influence of chloroform. We most fully agree in the use of morphine and quinine, and have no doubt as to the value of anæsthetics; the experience of the author is very satisfactory, in the use of chloroform and ether in combination.—*Ed. Buffalo Med. and Surg. Journal.*

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[From the American Medical Times.]

Foreign Correspondence.

By Prof. Chas. A. Lee.

London, July 10, 1862.

My last letter was occupied with matters connected with the Great Exhibition. The present will be devoted to the same objects.

The immense display of surgical instruments from almost every country on the globe, except our own, including even Japan, cannot but attract the notice of medical men. My notice of them, however, must necessarily be very general and brief; but you will find excellent descriptions, with illustrations of all the most important instruments here exhibited, by Dr. Feaer, in the "London Medical Times and Gazette" to which I would invite your attention. Most of the instruments and appliances intended for the cure and relief of disease, are collected and arranged in one department, and form a class especially devoted to the purpose, and of course are readily examined and compared. There are about 130 cases of surgical instruments exhibited of all sorts; about one-fourth of them dental; and there is no end to the plasters, stretchers, artificial limbs and eyes, respirators, breast-pumps, magnetic apparatus, electro-chemical baths, stethoscopes, sphygmometers, ozonometers, philosophical and chemical apparatus, &c. A slight general survey will satisfy the observer that human ingenuity has been taxed to the utmost, and has actually supplied all the mechanical apparatus and instruments which can possibly be devised for the cure or alleviation of human ailments, and that nothing more remains for human invention to discover in this department hereafter. No man of philanthropic feelings, can view these immense collections without a sentiment of pride and gratitude, that so much science, skill, and ingenuity have been so successfully exerted in devising means for the relief of human suffering.

The improvements in the mechanical department of surgical science have been immense during the last ten years; and as much has been done to simplify instruments and render them more practically useful, as in the invention of new ones. It is, however, very evident that many surgical instrument-makers lose sight of that important maxim, that simplicity, not complicity, is the object to be aimed at in their construction. The French, as it seems to me, have been especially regardless of this principle; while the English have always kept it more in view. It would perhaps be invidious to make a comparison between the French and British exhibitors, but I am free to say that the relative progress of the two nations, in this regard, during the last ten years, appears to me to be in favor of the English. The instruments of the latter have undergone a most marked improvement in regard to lightness, skilful adaptation to the end designed, elegance of finish, and ingenuity of construction. The recent improvements in orthopœdic surgery are especially worthy of note, especially the appliances intended to counteract the paralysis of certain sets of muscles, as of the foot, forearm, and hand. I am tempted to pass over that unscientific, unphilosophical, and horridly cruel instrument,

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the *écraseur* and its various modifications, invented by Savigny nearly one hundred years ago, and long since fallen into disuse. It is to be regretted that, in this humane age, any surgeon of any country can be found, who will give any countenance to such a barbarous instrument, or that any manufacturer dare exhibit it among the legitimate appliances of scientific surgery.

The recent increased attention given to diseases of females has stimulated inventors to furnish a great variety of instruments intended for the relief of this class of diseases, such as pessaries, uterine sounds, hysterotomes, instruments for the treatment of uterine polypi, vesico-vaginal fistula, *intra* and *extra*-uterine and vaginal specula, &c.

Nor have diseases of the male genital organs received less attention, as shown by the great variety of catheters sounds, dilators, scarifiers, lithotrites, urethrotomes, and even urethroscopes; by which we are able to see the interior surface of the human bladder, just as we can see the vocal cords and internal surface of the larynx, by means of the laryngoscope. Moreover, we are glad to see saws of lighter construction and more teeth; bone forceps of different curves and capable of more extended applications; new and improved trephines; and very ingenious appliances, intended to relieve congenital and other deficiencies of the hard and soft palate. In regard to chloroform inhalers, unfortunately rarely used in the United States, I must acknowledge myself wholly converted to the expediency of employing them whenever this powerful agent is administered. It is true I have administered it a great many times on a napkin without any fatal accident, but I shudder when I think of some of my cases, where resuscitation was effected with difficulty. I have seen much of chloroform inhalation since I have been in London, and no approach to danger where an inhaler was used; but in two cases where it was administered on a napkin, both the pulse and respiration were suspended for a considerable period. There are patent inhalers of Weiss, Snow, Clover, and other manufacturers, which regulate with the utmost exactness both the percentage of atmospheric air, and chloroform, which the patient inhales, so that there is not the slightest danger whatever of any accident from administering too large a quantity, if ordinary care be used. Four per cent. of chloroform is as large a proportion as it is safe to give. This exact quantity can always be secured by a properly constructed inhaler.

The cases of M. Charriére, the celebrated French instrument maker, will well repay an attentive examination. For originality and ingenuity of contrivance, I believe this manufacturer stands unrivalled. His urethrotomes, dilators, and lithotomes have a world-wide celebrity, and his specula of two, three and four valves, are as yet unsurpsssed. I do not learn that his uteroscope has been of much practical service as yet, although favorably noticed. I believe, by the French Acadamy of Medicine; his modified tracheotomy tube is far superior to the one in ordinary use; and his new obstetric forceps, the blades of which can be elongated, have some important advantages over those of the ordinary kind.

But it is impossible amidst such a lavish display to go into detail in regard

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to particular instruments; a few national characteristics, it may, perhaps, be well to notice. The French, it seems to me, excel in novelty, smoothness of finish, and temper of the steel; they have also a greater variety; while the English makers study practical utility more, and adaptation to objects in view. There is a profusion of gold and ivory about some of the English cases in the form of gilded blades and ivory handles, which are not in good taste, but rather meretricious ornaments, which, if they do not positively detract from, certainly add nothing to the value of the instruments. I regret that none of our American instrument-makers have entered the lists in this department, as I am satisfied, their ingenuity, skill, and workmanship, would not suffer by comparison with any of the competitors whose samples are now on exhibition here. In artificial limbs, for example, we can, unquestionably, bear away the palm from all competitors. We may not be able to show so great a variety as the French, as we study simplicity and practical utility more; but we can at least point to as successful results from our great operations, and those of a more delicate, though not dangerous kind, as those of the eye, for instance, as the French, English, or any other nation. It is doubtful whether mere mechanics can, at all, appreciate the possibilities of the simplest instruments in the hands of a skillful and scientific surgeon. Science and mechanics tend to opposite extremes and draw in opposite directions. The first aims to do away with all mechanical appliances whatever, or at least as far as practicable, and rely on the simplest means; the other resolves all skill and all success into some ingenious contrivance, which is almost automatic. This is well illustrated in the operation for lithotomy. A good anatomist will ask for no ingenious lithotomes, etc., to reach the bladder; but prefers a simple scalper to all the contrivances of a Charriére, a Lue, or a Weiss, and so in other cases. Look also at the strange and bungling contrivances for compressing arteries in cases of wounds, amputation, or the treatment of aneurism, known as tourniquets! How inferior most of them to the thumb of an assistant!

I had intended to speak of a trocar invented by Mr. Spencer Wells for the evacuation of the contents of an ovarian cyst, consisting of a steel tube sliding inside a canula of silver or other metal. I have seen this gentleman use it in a case of ovariotmy, but the fluid was too thick and gelatinous to flow through it; when the contents are quite fluid, I have no doubt it would answer a useful purpose.

LONDON, July 12, 1862.

This imperial city now extends over 122 square miles, numbering nearly 3,000,000 of inhabitants, and represents the civilization of the age. It also offers unrivalled advantages for the study of mankind under singular circumstances. Its average annual mortality is a fraction over twenty-two in a thousand, and the recorded observations of the last twenty-three years have thrown great light upon prevalent causes of disease; indeed, it has been well observed that the results are as valuable as an experimental philosopher could have deduced from his experiments, if he had had the power to expose the population to great vicissitudes of heat and cold, of dampness and dryness; to the changes

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incidental to differences in the prices of food; to air and water of different degrees of impurity; and to destructive epidemics. No fact is better established than that excessive heat and cold injure health, and increase the mortality, the first, by occasioning bowel complaints, the latter, diseases of the respiratory organs—the effect being much the greatest in infancy and old age, and varying with age at rates regulated by laws.

Water, as it forms the greatest portion of the human body, has been well called the life-blood of cities, and the lowest mortality range is only compatible with a high degree of purity of this element.

The water used for drink by the inhabitants of this city is derived from shallow wells, deep wells, New River, the river Thames, and its tributaries. The well water is very impure, and has a large amount of organic matter in solution derived from cess-pools. The Thames is the great sewer of London and the country adjacent. In 1849, when 14,125 persons were swept away by cholera, it supplied the south and west districts of London with drinking-water, containing large amounts of organic matter, and it was found that the rates of mortality by that disease bore a direct ratio to the impurity of the water used by the inhabitants. No more important fact, perhaps, has ever been established by registration, than that the liability to attack from epidemic cholera is in proportion to the quantity of decaying organic matter contained in the water drunk. This was so fully proved by a committee appointed by the Board of Health, to enquire into the deaths in every house supplied by the different water companies, that it has never since been disputed, and yet the quantity of organic matter in the Southwark water, which proved so deleterious, was only two grains in a gallon in excess of that in the Lambeth water, so that 15 in 10,000 died of cholera who drank of water taken high up from the Thames, at Kew and Hammersmith; 48 in 10,000 in districts supplied by tributaries of the Thames; and 123 in the same number supplied with water taken from the foul part of the Thames, between Battersea and Waterloo Bridge. The tributaries of London have, in fine, proved beyond all doubt, that water containing minute quantities of organic matter, as river water receiving the sewage of towns, or surface wells in cities, into which impurities will find their way, must often contain the elements of zymotic diseases, and can never be drunk with entire impunity. In other words it is a truism, that the purest water is the healthiest. Government, acting on this well established fact, directs twelvemonthly analysis, by a skilful chemist, of the waters of each of the six companies which supply London with water, to be published in the Weekly Tables, so that the public constantly know, or have the means of knowing, what kind of water they are drinking. It would not be amiss to have a similar regulation adopted in regard to our New York Croton water, which is often loaded, in hot weather in summer, with organic matter, in the shape of infusoria, which increase, as is well known, with miraculous rapidity. This may be easily remedied now, as we have three reservoirs, by causing the water to be entirely drawn off from each, at certain intervals, during the summer and autumn, the city being in the mean time supplied from the others.

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There is no doubt in my mind that this cause contributes to the high death ratio in New York, especially among children; for the reduction of the mortality in London coincides very accurately with the improvement in the water supply. It is well known that the sewage of this city is, in general, very perfect, and no city in the world, so far as I know, is always kept in a cleaner condition. Hence it is not illogical to attribute the diminished mortality (22.49 in 1000 living in London, in 1860) to the improved water supply.

And this brings me to a subject which has been suggested by a late visit to the International Exhibition, viz. the various methods of filtration and other modes of purifying water there displayed. More than one hundred different patents have been taken out in England for the purification of water, and we often see beautiful fountains of curious devices fitted up in shop windows, where such apparatus is kept for sale. So far as I have been able to investigate the matter, *carbon*, in some form, is the agent generally employed, although there is scarcely a porous or tasteless substance in nature but what is put in requisition for this purpose. When charcoal is employed it is usually made solid by compression, as the finer the pores the more perfect the filtration, as is supposed. But there is always this difficulty, that the pores in a hard mass must unavoidably become more or less clogged in a short time, and there is no way of cleansing them. This objection must always, as it seems to me, apply to filters made of consolidated charcoal; granules of animal charcoal, it is well known, offer an equally effectual resistance to impurities, and filters composed of it can be readily cleaned by simple rinsing. Still, filters made of solid masses of silicated charcoal, silex being employed to give shape and consistence, are now very popular in London, and are in constant use in the royal household, and most houses of the nobility and gentry. The silex usually employed is a refuse of gasworks; formerly some bituminous compounds were used to bind the carboniferous particles together—many prefer filters made of loose particles of charcoal, in grains about the size of gunpowder, regarding silex, pitch, or any other substance to bind the particles together as having no advantage whatever, and being simply an adulteration. Such are Danchell's filters, while Messrs. Dahlhe, Atkins, and others are the solid blocks. A popular error in regard to water needs correction, and that is, that water containing deleterious matter must necessarily be foul in appearance; whereas some of the wells in London, which yield apparently the clearest, brightest, and most translucent water I ever saw, are absolutely so loaded with organic matter as to be poisonous, and no filtration will correct the evil. Whatever the impregnations may be, they are not removed by carbon filters; nor will any of these one hundred filters remove any of the salts of lime held in solution—not even the phosphates of the graveyards and cemetaries. It is well that we have such infallible chemical tests for these and other mineral salts and substances.

One highly original plan of filtration by Mr. Spencer deserves special notice, and that is, the *magnetic* system of purifying water, which has now been adopted in the public supply of several large towns. This is the same gentleman

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who discovered electro-metallurgy, and I believe that he confidently claims for his system, that it will separate all mineral and organic matters whatever from water. That it may readily separate all ferruginous matters I can readily understand; but on what principle it removes salts of lime, or other minerals, is not very easy to comprehend.

In my visits to the various markets in London, and especially to those narrow, dark streets, where meat is sold to the poorest classes, I have been greatly surprised to see the great quantities of diseased meat allowed to be sold. I have seen, within sound of Bow Bells, more diseased meat offered for sale during the last two months, than I ever saw in New York during my whole life. Indeed, such samples of flesh meat, I venture to say, could hardly be found beyond the precincts of this city; and that notwithstanding there are plenty of Health Officers and Inspectors. Generally it sells as low as a penny per pound, and it is fearful to think what quantities of it must be consumed by the poorer classes. It is especially patronized by the sausage-makers, soup shops, and beef and meat pie shops. Such meat is sent here from all parts of the country, even from a distance of 150 miles, or more; and some Insurance offices exist in London, who insure cattle and sheep on condition that if the animals die from diseases, they shall belong to the Company, "the party insuring receiving two-thirds the value of the animal, and one-third the salvage; or, in other words, one-third of the amount the beast is sold for when dead." And those insurance offices have their own slaughter-houses, where such animals are killed and dressed. Nearly 5000 lbs. of such meat have been recently seized in this city in one week, and yet the trade flourishes. It has been ascertained also that a considerable portion of this diseased meat comes from urban cow-houses—a pest quite as common here as in New York. The contagious pleuro-pneumonia, which has recently proved so fatal to cattle in New England, has prevailed extensively in England of late years, and is the most fatal of all diseases affecting ruminant animals. It has recently been shown, that within the last few years this disease has prevailed more or less in every dairy in the city, and that probably *in all cases*, cows sick or dying of it, have been sold to the butchers. The contagious lung disease has extended to most of the grazing districts of the island, affecting sheep as well as cattle; and as soon as an animal gives any signs of an attack, it is slaughtered and sent to London, or some of the great towns. The disease, however, is said, by veterinary practitioners, to be more ripe among London dairy stock than elsewhere, owing to the over-crowded, ill-ventilated, and filthy cow-sheds. The obvious remedy for this evil is, the abolition of private slaughter-houses, and the erection of public *abattoirs*, as in Paris. No animal should be allowed to be privately killed and dressed; and this should be extended to the whole kingdom. The great multiplication of private slaughter-houses in New York furnishes extensive facilities for the sale of diseased meat; and the immense nnmber of cows kept in close stables, and fed on distillery slops, furnish strong temptations to their owners to make their carcasses profitable, as well as their milk, even when dying of disease. Perhaps closer in-

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vestigation in regard to this matter may lead to the discovery of evils whose existence is hardly suspected. However this may be, there must exist some powerful special causes of sickness and death, of far wider scope and greater intensity than are found in London, to account for the much higher death rate than prevails here, or in any of the large cities of Great Britain, or even of Europe.

LONDON, July 15, 1862.

Having received an invitation from the "London Metropolitan Board of Works," to accompany the officers and members of the vestry of the different parishes in London to view their main drainage works, I joined a party this morning, and in carriages reached the works at Old Ford, several miles below the city, near the Bow station, on the North London railway, and opposite Woolwich.

I may premise, that the old sewers of London have been, for years, incompetent to perform the office for which they were assigned; not only this, they became an unwholesome, dangerous, and often fatal nuisance; poisoning the river, and causing a most offensive effluvium. So intolerable did this become, that during the hot summer of last season thousands of tons of lime were thrown into the Thames near Putney bridge, just at the turn of the tide, so as to act as a disinfectant. A beneficial effect is said to have been produced, but by no means adequate to counteract the deadly miasm. You are doubtless aware, that a large proportion of the ground on which London stands is so low, that the drains in connextion with the houses empty themselves into the rives at a level considerably below high water mark. In some places the outfall is so low that it is stopped by the tide for sixteen hours out of the twenty-four; in other places it is still worse, the stoppage continuing for twenty hours out of twenty-four. During all this time, the sewers in these localities are a sealed up mass of waste matter which, accumulating with its own flow, and being forced back by the rising tide, not only sends out immense volumes of fœtid effluvia into the streets and dwellings, but frequently overflows with fluid filth into the cellars, basement floors, and low garden grounds of the more densely crowded districts. The health of these neighborhoods, of course, suffers in proportion, and thousands annually sicken and die of cholera, fevers, and bowel affections, who would enjoy good health, could they but breathe a pure atmosphere. Those drains, moreover, are quite unsafe to enter, many having perished who have ventured to enter them. In some cases, the refuse from factories and chemical works has filled the culverts with carbonic acid gas. Besides all this, during rainy seasons and in sudden floods, the existing drainage was entirely insufficient to carry off the water.

The carrying out an effective system of drainage has been under the consideration of Parliament at various times since the year 1848, and the present plan, the execution of which has been committed to the Metropolitan Board of Works, appears to comprise the best medical suggestions of scientific men most acquainted with the subject. From the circumstance that so large a proportion of the area of London lies so low as to be near the level of the Thames,

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or even several feet below it, it is impossible to drain the whole surface effectively without finding a much deeper level than the river presents. For all these low-lying districts, therefore, main sewers at a very low level are in course of construction on both sides of the river; and from these low level sewers the contents are to be pumped up by powerful stationary engines into the higher sewers, to be discharged into the Thames some fourteen miles below London bridge—so far from the Metropolis as to leave it unpolluted; or into reservoirs for deodorization and the formation of fertilizing manures. But, wherever the ground is sufficiently elevated to allow of it, the main sewers are constructed on levels high enough to render the drainage self-acting, so that pumping will not be necessary. The new system of drainage, now being prosecuted, extends twelve miles from Charing Cross in every direction, embracing an area twenty-four miles in diameter and seventy-two in circumference. In order to secure a sufficient inclination, some of the new drains dip gradually to a depth below the main tunnels, before they join them; and where this is the case, pumping stations are erected, and the sewage pumped up into the outfall drains, as fast as it accumulates. Provision is also made for storms and sudden falls of heavy rains, by outlets communicating with the river. I may remark that under the present system over fifty-two million gallons of sewage are now daily poured into the Thames.

The main drainage scheme was commenced in February, 1859, and out of the estimated cost, £3,000,000, works to the amount of £2,000,000 are now under contract, some of which are completed, and most of them are in a rapid state of completion, embracing about fifty miles of main intercepting sewers, of which thirty-four are now completed; mostly underground, but in some places above it, crossing alternately over and under navigable rivers, railways, canals, and roads, and including pumping stations, aqueducts, pen-stocks, tide-flaps, and other appliances. I should have stated that the whole area on each side of the Thames has been divided into three levels, and the sewage is carried as far as practicable from the two upper levels by gravitation, while that from the low levels is raised by pumping, by which means the low districts will become as dry and as well drained as the upper districts, and the waters of the upper will no longer inundate the lower districts. Moreover, although the sewage from the main drains enters the Thames fourteen miles below London bridge, it is to be discharged during the first two hours of the ebb tide only, the period of discharge being restricted to those hours, because thus the sewage would be deodorized and diluted by a volume of water twenty times greater than that which now dilutes it at London; and because each ebb tide would, in returning to the sea, convey it to points twelve miles below the outfalls, or twenty-six miles below London bridge, through a constantly enlargeing flood.

On arriving at river Lea at Bow, I was surprised to find about one thousand gentlemen representing the various vestries of the parishes of London on the same errand as myself. After examining somewhat the northern high level sewer, which extends for a length of nine miles from Hampstead to the river

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Lea, we descended into the northern outfall sewer, which enters the Thames over four miles distant at Barking creek, and consisting of double and triple lines of sewer, each ten feet six inches in diameter. This is a most magnificent work, progressing rapidly, though not completed, crossing great marshes, where the foundation had to be laid twenty-five feet below the surface, and cocrete filled in to form a solid embankment for the reception of the brickwork, for a considerable part of the way. We walked through a mile and a half of the portion of the sewer which is completed, admiring the solidity and beauty of the structure, the interior being well lighted with candles throughout; when we again emerged into daylight, and after examining the river aqueducts to convey the sewage over the rivers and railways, the tunnel under the Eastern Counties Railway embankment, and the culverts for carrying the marsh drainage under the sewer embankment, etc., we mounted a long train of gravel cars, and were soon set down on the bank of the Thames, where a generous *dejeuner* was waiting for our refreshment. Here under a tent of some two hundred feet in length, we found five tables extended the whole distance, and loaded with substantials and delicacies, not omitting a generous supply of ale and stout. These matters having been duly despatched, the usual toasts drunk, and speeches made, we embarked on board our steamer and steered direct for Deptford, adjoining Woolwich. Here we penetrated to a depth of some thirty feet below the surface, and entered the grand southern low level sewer, which is about twelve by fifteen feet, ovoid as usual. After walking through this about half a mile or more, we came to the Deptford pumping station, and here, nearly forty feet below the surface, one thousand voices united in the grand chorus "God save the Queen."—The reverberations were like thunder to the ear, and seemed as if they would never cease. There was excitement as well as sublimity in the scene. Here four stationary engines of nearly two hundred horse power each, are placed, to pump up the sewage to the "Southern High Level Sewer."

But I must reserve further remarks on this subject to a future letter. I have written enough to give some idea of the magnificent work here in progress, which if it does not surpass, certainly equals any similar work ever executed at any period of the world, or by any people.

Bromide and Iodide of Potassium in Epilepsy.

Cases and Clinical remarks by Dr. WILKS, Guy's Hospital.

[The efficacy of iodide of potassium in cases of epilepsy arising from syphilis is not singular. Most remarkable success sometimes follows its exhibition.]

The bromide was recommended by Sir C. Locock as a remedy having some influence over the ovary in females, and therefore curative of those epileptiform affections which might be due to the irritation of this organ. Although this theory was questionable, yet if it were founded on any facts showing the

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efficacy of the remedy, this was an additional reason for adopting it; and we thought equally good for all cases, whether men or women. Since using this remedy, Dr. Wilks added, now for two or three years, and in a large number of cases, he had undoubtedly had more success than heretofore, being fully aware, he said, of the remarkable fact that epileptics generally seem to be better on any new remedy, whatever its nature may be, and, also, that should it exert a real influence the benefit is often only temporary. The *rationale* of this success is connected, we imagine, with the remarks just now made, that many cases of epilepsy depend on a local affection of the bones or membranes, which the remedy removes by its absorbent powers.

Not that we can prove the existence of any such cause in most instances, but knowing the value of the medicine where such cases exist, we have explained its *modus operandi* by its selecting out these cases for cure. That epilepsy may exist for years, and only at death a local cause be found, we know from several instances, and in such there has been no difficulty in discovering a history of injury at an early period of life. Another explanation for an occassional cure by this remedy may be found in the fact, that fits arise sometimes from lead poisoning, and that the iodide or bromide of potassium is instrumental in eliminating the poisonous metal from the system. In two or three cases we have seen epileptiform fits arising from lead poisoning, and in which iodide of potassium was used with success. In this way it may sometimes have been supposed to have cured epilepsy.

Knowing how apt we are to be deceived by the operation of a new remedy, I do not speak more peremptorily on the subject, but add a few cases; only stating that I continue to use it in all new cases which come before me, believing it to be wise to adopt some such remedy in the first instance.

Case 1.—Cecilia D., aged 22, came to the Hospital in April, 1860. Her mother accompanied her, as she was unable to find her way and was childish in her manners. The mother, indeed, never left her night nor day, as she generally had two or three fits a-day. They had existed many years, but for two years had occurred daily. She had more than once fallen into the fire and burned herself. She was ordered five grains of bromide of potassium three times a day. The fits soon began to grow less in number, but the improvement was not very marked until her visit on June 6, when she had no fit for three days, and in the following week, the 13th had had none. After this they occurred at long intervals. She persisted in the medicine, with the exception of a week or two, and the report was, on October 24, "No signs of a fit for two months." At the end of another month, there having been no attack and her health improved, she ceased to attend. On February 13, 1861, she came again to the hospital; she had remained well ever since (nearly six months) until a few days before, when, having lost a brother suddenly, she was seized with four fits in succession. She commenced the same medicine again and persisted in it for six weeks, until her letter was out, when having had no return of the fits, she was dismissed. The girl thus not only lost her fits, but became more robust and in better health, a fact, Dr. Wilks said, he has noticed

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in similar cases, that as the disease recedes so does the health improve. In this particular case it might be thought that with such a striking result some syphilitic taint was present, but none such was discoverable.

Case 2.—Amy M., aged 18, came as out-patient with fits in March, 1860. She took bromide of potassium in three-grain doses, and the fits soon ceased. At the end of three months none having occurred, she left. This case is unsatisfactory, as a long interval sometimes intervenes between the attacks.

Case 3.—Alfred C., aged 36, a worker in lead, came to the hospital on June 13, 1860. He was a very feeble man, and had a remarkably sallow or waxy complexion, and had a blue line on the gums. He had fits and some hesitation in his speech. He took the iodide in three-grain doses, and left at the end of two months in much better health, and with a cessation of the fits.

Case 4.—Francis K., aged 34. For two years he had been subject to fits. At first they appeared at long intervals; afterwards about once a month, subsequently about twice a week. He stated that he fell without any notice, and struggled violently. He was ordered the bromide, and when he left, in December, 1860, he had had none for ten weeks. He was seen some weeks afterwards, and he stated that he had had a slight warning twice, but never a decided paroxysm.

The following case affords a good example of the advantages of accurate diagnosis. It might, Dr. Wilks said, be regarded as a typical case of syphilitic epilepsy cured by iodide of potassium:—

Robert C., aged 36. He was a carpenter, but formerly had been a soldier in India; was invalided, owing to rheumatism or pains in the limbs. Two months before admission he had a fit whilst walking in the street; and on recovery he felt his left arm and leg numb and weak. He has had about a dozen fits since and in some of these he has not lost his consciousness but he foamed at the mouth, and bit his tongue. Two days before admission he had a fit, followed by a great loss of power of the left arm and leg. On admission he was exceedingly ill, complained of great headache, and had partial paralysis of the left side, the arm being almost powerless, but the leg he could move a little. He soon after had three fits, in which he was convulsed all over, and screamed out. This he had done in previous attacks, and it was said, "acted like a madman," although in the slighter attacks he had retained his consciousness. In the intervals he complained of pain in the right side of the head and neck, and was so weak that he could not move his head from the pillow. He was almost totally paralyzed on his left side; the weakness increased since admission; sensation perfect; no paralysis of face; eyes unaffected; pupils natural; also great difficulty of swallowing, and mouth apthous. His wife was sent for to sit up with him, as it appeared scarcely possible that he could survive long. As the patient had never been in a condition to give a good history of his case, the wife was questioned and she said that he had a fall two or three years before, also that he had long suffered from pains in the limbs, and that she had had several miscarriages and dead-born children. The patient was then again examined, and it was found that one clavicle was enlarged, as well

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as os femoris on one side. All these circumstances suggested syphilis, and therefore iodide, in ten-grain doses, was given. He began to improve in a most remarkable manner; only one or two more fits occurred; the paralyzed limbs began to get stronger, and complete consciousness returned. His generul condition also improved, and at the expiration of three weeks he was able to leave his bed and walk about. About the end of another week he had only a slight dragging of the foot, and he left the hospital convalescent at the termination of not quite a month after the commencement of the medicine. This case afforded the most remarkable recovery we have ever witnessed from a disease of this severe character.—*Med. Times and Gazette, Dec.* 21, 1861, *and Jan.* 4, 1862, *pp.* 635, 7; *Braithwaite's Retrospect.*

On the Influence of Alkalies in Checking the Production of Artificial Diabetes.

By Dr. F. W. Pavy.

[Dr. Pavy has already shown that diabetes may be artifically produced in an animal by injuring certain portions of the sympathetic. He now shows that this effect may be prevented by the influence of an alkali; the amyloid substance previously called by him hepatine disappears without any production of sugar.]

The following is a summary of the facts brought forward at present:—

That the introduction of carbonate of soda into the circulation prevents the production of saccharine urine after lesions of the sympathetic otherwise occasioning it.

That the carbonate of soda injected into the general venous system does not prevent tha urine from becoming saccharine after the destruction of life, when the circulation is kept up artificially; but, injected into the portal system, so that all may pass through the liver, it has the effect of keeping the urine entirely free from sugar.

That in the disappearance of the amyloid substance, under the influence of the carbonate of soda, it is not concealed nor transformed into sugar, nor destroyed by any direct chemical power possessed by the carbonated alkali. The facts before me would suggest that it is transformed by a process of the nature of catalysis, the product having escaped as yet being discovered.

That the carbonate of soda, injected into the liver after death does not effect a disappearance of the amyloid substance, but even in moderate quantity holds the saccharine metamorphosis completely in check.

That there is probably a close connextion between the disappearance of the amyloid substance, the production of fat, and the condition of the bile.—*Guy's Hospital Reports, Vol. vii. p.* 208; *Braithwaite's Retrospect.*

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Veratrum Viride.

(From Correspondence of the *Medical and Surgical Reporter.*)

TAUNTON, Mass., June 8, 1862.

MESSRS. EDITORS:—In your last issue (May 31st) is an article on veratrum viride, pronouncing it both dangerous and unsafe even in small quantities. I have used it very extensively for the past twelve years; and three years before that I experimented with it; and I know of no one remedy that I would risk my life on so contentedly as I would on veratrum viride. But it should be well understood before commencing its use. The rules to be observed are: 1. See you have a good *fresh article.* 2. Make your tincture by the quantity, so that it will be uniform; then the propor way of administering it is to drop in a tumbler of water the quantity to be given in twenty-four hours, and give one teaspoonful each hour. But I have not seen any bad effects from it, although I frequently give it. I have kept the patient for four or five days completely under the influence of it, in a severe case of pneumonia, but I seldom have occasion to repeat it. After the third day the fever is all gone, and I then follow it with tonics. Dr. Platt does not give his mode of prescription. That is of the utmost importance. Some physicians leave it in a phial, and direct the nurse to give a certain number of drops—a very imprudent course. I have saved many lives with the veratrum, and regard it as an excellent remedy, when judiciously administered. Very respectfully yours,

S. P. HUBBARD, M. D.

BETHANY, Pa., June 8th, 1862.

MESSRS. EDITORS:—I have used the veratrum in my practice about two years, and having observed its effects closely in a great number of cases, I do not hesitate to pronounce it a remedy of very great importance in the hands of a judicious practitioner. As an arterial sedative it is vastly superior to digitalis, and I do not think it liable to accumulate in the system and suddenly explode, as is the case with that article. I came very near killing a patient of mine, a few years since, while administering digitalis, very cautiously too. I gave it in small doses, at stated intervals, carefully watching for its effect, and, after a number of days, was about abandoning the remedy as inert, when suddenly the most alarming prostration occurred, requiring the exhibition of stimulants in extraordinary quantities to prevent a fatal result. I have seen no such effects from veratrum. I do not doubt that a medicine so potent may, in incautious hands, do mischief. What article in the materia medica possessed of considerable power will not? I notice that your correspondent from Rhinebeck, New York, thinks that it has a dangerously depressing influence, even in small doses. Owing to peculiar idiosyncrasy on the part of the patient such may be the fact, but that such is not its usual effect I am well assured; in fact, I have never witnessed any such effect, even where the pulse has been reduced very much below its normal standard. In scarlatina I regard the

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veratrum as a remedy of extraordinary value, and I am very certain that it does not interfere with the eruption, or any other symptom essential to the wellbeing of the patient. When the skin is dry and hot, the patient restless and uneasy, pulse up to a hundred and fifty perhaps, the veratrum acts like a charm. The pulse comes down, in five or six hours, to a natural standard; the skin becomes moist, nervous restlessness is subdued, and in fact, the whole aspect of the case is changed in a few hours. The momentum of the blood being moderated, a less quantity is forced into the small vessels of the tonsils and adjacent tissues. The angina is consequently very much modified; and all this benefit without the risk of inducing permanent prostration. Such cannot be said of venesection, which gives us a temporary benefit, while its ultimate effect is, in my view, certainly injurious in all severe cases of scarlatina. I do not think that dropsy is apt to supervene in those patients who have taken the veratrum during the active stage of the disease, at least I have seen no such cases, and I have been through one pretty severe epidemic since the adoption of the remedy in my practice. Yours respectfully,

W. C. Phelps, M. D.

Holyoke, Mass., June 25, 1862.

Messrs. Editors:—My attention was called to an article in the May number of the Reporter, in which there is an effort to show that the veratrum viride is a dangerous remedy. I have not seen the report of cases referred to in the Medical Gazette. Yet as I have used the veratrum viride considerably in my practice for the last four years, and especially in that form of disease called typhoid pneumonia, I cannot but think the assertion a very improbable one, that in one year it has caused more deaths than chloroform has since its discovery. In elucidation of this position, I send you a report of a case treated by veratrum viride, the dose of which by mistake was larger than is generally recommended.

Patrick H., a large well-built Irishman, about forty years of age, after exposure on the 20th of February, 1860, was taken in the evening with severe chills, followed by high fever. I first saw him about 10 A. M., the 21st; his face was of a dusky red color; pain in the side; delirious; sputa viscid, dark, "prune juice" color; tongue furred with a yellowish coating; pulse 140; respiration 42 per minute. I directed a few grains of pulvis antimonialis every four hours, in a little warm gruel, a mustard poultice to the side, to be changed about as it became reddened in one place, and five drops of veratrum viride every four hours, alternately with the powders, to be given in toast-water, with some other minor directions. About nine o'clock in the evening, I was summoned in great haste to the patient, who it was said was dying. I found him extremely depressed, had vomited very large quantities of viscid, greenish, cold matter; his pulse 40, respiration 12 per minute. On looking at the half-ounce phial, which I had left full of the veratrum, it was nearly gone; his wife said they had given it just as I had directed, a teaspoonful every four hours, three large teaspoonfuls in twelve hours. I immediately commenced

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giving him ginger tea freely, and divided one grain of morphia in four parts, and gave a quarter grain in the tea, at once; remained about an hour, repeated a quarter grain of morphia, and left him with directions to give no more medicine, but let him sleep. The disease was broken up; he was very comfortable the next morning. I saw him in the street a day or two afterward. Here was a case where the veratrum viride had reduced the pulse 100 per minute. Given by mistake in such large doses, it caused extreme depression and excessive vomiting, yet the patient readily rallied. I should like to be able to relieve a patient from the depressing effects of tart. emet. as readily.

The writer of the article referred to, asks triumphantly, "who now regards digitalis of any value in consumption?" I answer, I do; not because the disease *is* phthisis, but because in the case for which I would prescribe it an arterial sedative is required. I might prefer veratrum, as I deem it safer and more manageable. I would ask your correspondent, if he had ordered five drops of solution of arsenite of potassa, or strychnia, or aconite, or opium, or belladonna, or any other potent remedy, and by mistake a proportionate quantity to the veratrum had been given, would the result have been likely to have terminated so favorably? I regard the entire safety of the veratrum, given in any quantity, to consist in its emetic properties.

In conclusion, allow me to say that I heartily concur with the "forty witnesses," and in the State of Massachusetts, think there are five hundred more witnesses who would bear equally favorable testimony to the value of veratrum viride, as an arterial sedative, and also of its entire safety. Nothing more is claimed for it by its warmest advocates. Yours truly,

A. Bryant Clarke.

Treatment of Varicose Ulcers of the Leg without rest.

In a paper read before the Midland Medical Society, by J. H. Houghton, Esq., Surgeon to the Dudley Dispensary, the writer advocates the use of the flannel bandage, suggested by Mr. Hunt in 1857. Since adopting this treatment he has been able to manage, without difficulty, cases which he had before looked upon as next to incurable; and to effect a speedy cure without confinement, or to the patient's relinquishing his usual occupation. His general course is to strap the wound with a few strips of soap-plaster; or dress it with some simple dressing, or water dressing, and apply the bandage by first making "one turn round the bottom of the leg, then one under the sole of the foot, over the instep, and round the back of the foot (keeping the edges of the roller as low as possible), and then again over the instep, till the lower edge of the bandage passes round the foot at the root of the toes, about two turns round the foot, and then spirally up the leg to the knee." He says the roller naturally follows this course, and will not require a turn till it reaches the calf; and moreover, if properly applied, it will lie quite even and remain

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immovable for an indefinite period. He reports four of the most aggrivated cases treated in the Dispensary during the past four years, all of which were cured *without rest.*

In one case the patient walked nine miles every time she had her leg dressed (twice a week), and during the whole time stood at her work many hours a day. She was anæmic, and took quinine and iron during the treatment, which occupied just over a month.

In the second case, six angry ulcers, varying from the size of a shilling to that of the palm of the hand, were cured in eighteen days, the patient following her usual occupation the whole time.

In the third case, an angry granular ulcer, larger than the palm of the hand, with indurated raised edges, and of five years' duration, yielded to treatment in five weeks.

The fourth case was a large varicose ulcer, four inches by three, deep, covered with an ash-colored secretion, surrounded by elevated granular edges, very painful, throwing off an ichorous discharge, and which had existed thirty years. The leg was strapped with soap-plaster, and rolled. He took sarsaparilla and iodide of potassium three times a day, and opium night and morning. The patient walked twelve miles every time his leg was dressed, followed his occupation as gardener throughout the treatment, and was perfectly cured in eleven weeks.

The advantages of flannel over calico for the bandages are, that it is sufficiently elastic to give uniform support, and sufficiently rough to prevent it from slipping and getting displaced. It is advisable for the patient to sleep with a thin stocking over the roller to prevent its being kicked off in bed. He mentions having used a material called "domette" during the past year, which he thinks preferable to flannel, in being much lighter, sufficiently strong and elastic for the purpose, and about quarter the price. The roller must be accurately made and in one piece. He gets eight yards of domette, has it washed and cuts the rolls, measuring the width of each (two and a half inches) accurately with a rule. In this paper Mr. H. does not pretend to offer any new principle, but to show the results of a mode of applying an old principle not generally practiced.

The views contained in this paper are corroborated by J. K. Spender, Esq., and J. H. Crisp, Esq., in the *British Med. Journal* of Feb. 1st. The former gentleman says the ulcers will yield still more quickly by using a more soothing application than soap plaster. He recommends an ointment containing a large quantity of an alkaline earth (as chalk); spread thickly on lint it forms a protection to the sore, and neutralizes the foul secretion which often flows from it. He also recommends the compound lead plaster of the Pharmacopœia.

Mr. Mitchell, of the Lancaster Infirmary, gives to the readers of the *Lancet* the following directions for treating old indolent ulcers: First wash the leg well, after which apply a large linen pad, without allowing any moisture to come near; then envelope the whole limb in a starched bandage, allowing it

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to remain three weeks or so, according to the extent of the ulcerated surface. The patient need not be confined to bed, but may walk a little every day.—*American Med. Times; Cincinnati Med. and Surg. News.*

Tenth Annual Meeting of the American Pharmaceutical Association.

The meeting of this body, which was to have taken place at St. Louis, in 1861, but postponed on account of the national troubles, commenced its sessions at the Hall of the College of Pharmacy, Filbert street, above Seventh, [Philadelphia,] on Wednesday, August 27th, 1862, at 3 o'clock P. M.

The President, Henry T. Kiersted, of New York, called the meeting to order. James T. Shinn, of Philadelphia, Secretary.

Samuel M. Colcord, of Boston, P. W. Bedford, of New York, and A. B. Taylor, of Philadelphia, were appointed a Committee on Credentials, pending whose action the members were invited to enroll their names on the register.

The Committee on Credentials reported the following delegates from Colleges of Pharmacy, viz:—

From the Massachusetts College of Pharmacy—S. M. Colcord, Henry W. Lincoln, Chas. T. Carney, Thos. Hollis, and A. P. Melzar.

From the New York College of Pharmacy—John Milhau, John Meakim, J. W. Shedden, P. W. Bedford, Wm. Wright, Jr.

From the Maryland College of Pharmacy—J. J. Thomsen, N. Hynson Jennings, J. Faris Moore, Jonas Winter, and J. Brown Baxley.

From the Philadelphia College of Pharmacy—S. F. Troth, D. B. Smith, Elias Durand, Edward Parrish, and Jas. T. Shinn.

The Executive Committee then reported a list of members elected in the interim, viz:—Charles C. Thornton, of Sharon, Miss.; Fairman S. Taber, of Huntsville, Ala.; Thomas S. Moffitt, of Boston; Laban Beal, of Boston; A. S. White, of Mount Holly, N. J.; Francis M. Basset, of Brooklyn, N. Y.; George Peduzzi, of New York city; John A. Niebrugge, of Brooklyn, N. Y.; R. S. McMurdy, of Albany, N. Y.; Bernhard Reinhold, of New York city; Adolph G. Dunn, of New York city; N. F. Peck, of Willimantic, Conn.; Edward R. Fell, of Philadelphia; F. A. Keffer, of Philadelphia; J. R. Carpenter, of Calais, Me.; George J. Waugh, of Hamilton C. W.; S. F. Conway, of Brooklyn; R. J. Brown, of Leavenworth; J. S. Higgins, of New York city; Theobald Frohwein, of New York city; Andrew J. Tully, of Cincinnati; and John C. Gerhard, of Cincinnati.

The Roll was then called, and the names of those present noted by the Secretary.

The following named gentlemen were brought forward by the Executive Committee as candidates for membership, viz:—Wm. J. Allinson, Burlington, N. J.; W. Fisher, New York city; A. W. Gabaudan, New York city; Wm. H. Macrea, Factoryville, Staten Island, N. Y.; Henry W. Lesley, Bristol, Pa.;

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David Howath, Andover, Mass.; Benj. Gilpatrick, Jr., Boston, Mass.; Wm. H. Squire, Germantown, Pa.; Frederick Rollman, Philadelphia, Pa.; Ferris Bringhurst, Wilmington, Del.

They were duly elected by ballot, Mr. Wright, of New York, and Mr. Parrish, of Philadelphia, acting as tellers.

The Report of the Executive Committee being called for, it was read by the Chairman, W. Procter, Jr., and laid on the table for future consideration.

The Report of the Committee on the Progress of Pharmacy being called for, the Chairman, J. M. Maisch, presented a voluminous report, which, after a few remarks, was laid on the table for future disposition.

Invitations from the Academy of Natural Sciences, and from Surgeon Thomas, of the United States Army Department of the Episcopal Hospital, to visit those Institutions, were received, and read by the Secretary, who was directed to return the thanks of the Association.

Reports of Special Committees being in order, that on "Adulterations" was called for. Wm. Procter, Jr., stated that the Chairman, Charles T. Carney, of Boston, had been ill for many months, and wholly unable to accomplish the Report; that two other members of the Committee had died since the last meeting, and the remaining members were unaware of Mr. Carney's illness until too late to prepare a Report.

Samuel M. Colcord, Chairman of the Committee on the sale of Poisons, stated that no report had been prepared, owing to the postponement of the meeting last year, and the uncertainty of there being one this, until May last, since which time his business engagements and domestic afflictions have prevented it.

The object of the appointment of a Committee to promote the attendance of members at St. Louis, being defeated by the failure of that meeting in 1861, said Committee had no report to make.

It being now in order to appoint a Committee for the nomination of Officers to serve during the ensuing year, the delegations present selected the following gentlemen in accordance with a constitutional provision:—

Samuel M. Colcord, of Massachusetts College of Pharmacy; P. W. Bedford, New York College; Edward Parrish, Philadelphia College; J. J. Thomsen, Maryland College. To whom the President added:—Ferdinand F. Mayer, of New York; Ferris Bringhurst, Wilmington, Del.; J. Faris Moore, Baltimore.

After some discussion on the propriety of holding an Evening Session, which was not agreed to, the President read his interesting and suggestive Annual Report.

[This paper first dwells upon the state of the country, then refers to the reports of the Treasurer, Executive Committee, Committee on Adulterations, Committee on sale of Poisons, Committee on Deferred Business, special subjects referred to individuals for investigation, life membership and the suspended list; the report concluding with some feeling allusions to the national difficulties. Our space will not admit of a fuller notice.]

On motion, the Address was referred to the Executive Committee for publication. The meeting then adjourned until 9 o'clock to-morrow morning.

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Second Session.—Thursday morning, Aug. 28th, 1862.

The Association was called to order, near the hour adjourned to, by the President, and the minutes of the last meeting were read and adopted.

On motion of Edward Parrish, the Secretary was directed to engross in the Minutes extracts of letters from absent members to the Chairman of the Executive Committee, giving reasons for their non-attendance.

The Executive Committee reported the name of Edwin R. Smith, of Monmouth, Illinois, as a candidate for membership. A ballot being ordered, the tellers reported his unanimous election.

The Committee on Nominations reported the following names for officers and standing committees during the ensuing year, viz:—

For President—WILLIAM PROCTER, JR., of Philadelphia.

For Vice-Presidents—JOHN MILHAU, of New York; EUGENE L. MASSOT, of Missouri; J. FARIS MOORE, of Maryland.

Treasurer—HENRY HAVILAND, of New York.

Recording Secretary—P. W. BEDFORD, of New York.

Corresponding Secretary—JOHN M. MAISCH, of Brooklyn, N. Y.

Executive Committee—EDWARD PARRISH, Chairman, Philadelphia; HENRY F. FISH, Waterbury, Ct.; WM. J. M. GORDON, Cincinnati, Ohio; SAMUEL M. COLCORD, Boston, Mass.; P. W. BEDFORD, *Secy. ex-offi.*, New York city.

Committee on the Progress of Pharmacy—FERDINAND F. MAYER, New York city; W. NEERGAARD, New York city; J. JACOB THOMSEN, Baltimore, Md.; E. W. SACKRIDER, Cleveland, Ohio; J. M. MAISCH, *Cor. Sec. ex-offic.*

On motion a ballot was ordered for President and Vice-Presidents, when the tellers reported their unanimous election.

On motion of Dr. Squibb, the President was requested to deposit a ballot for the remaining officers and committees; the tellers reported that they were unanimously elected.

Mr. Kiersted now requested Mr. Procter, the President elect, to take the chair, in doing which the gentleman made the following brief remarks:

Gentlemen of the Association:

I believe that your partiality and personal good feeling has removed me from a sphere wherein I could operate usefully to the Association, and creditably to myself, to a position for many of the duties of which I am unqualified by ignorance of parliamentary usage. This much I earnestly represented to a portion of the Nominating Committee. In accepting, therefore, this chair, I will endeavor to perform its duties, and I beg you to remember what has been said, and be as charitable towards my short-comings as you have been liberal of your good will.

The Secretary then resigned his place to Mr. Bedford, the Secretary elect.

On motion of the Chairman of the Business Committee, the Report of the Executive Committee was brought up; when the Chairman of that Committee requested to amend the Report by inserting a paragraph which had been omitted in copying, relating to the plan of admitting new members in the interim between meetings, as directed in the Constitution. The request was granted. It was then moved that the Report of the Executive Committee be accepted and recorded in the minutes.

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[This Report gives an account of the publication of the Proceedings of 1860, of their distribution, and of their cost. The aggregate expense of printing, engraving, paper, and binding 1000 copies is stated at $602.76. The expenses of distribution $51.85. The number of new members admitted in the interim was twenty-two, and seven deaths have occurred.]

The recommendation in the report regarding the mode of creating members in the interim, was now discussed. Dr. Squibb said that the present plan involved much labor, and thought the time had come when it would be proper to abolish the plan of admitting members in the interim. Mr. Parrish thought a better plan might be adopted, and suggested that a committee be appointed to consider this subject, and also the future disposition of the suspended list recommended in the President's annual address.

On motion, the Chair appointed Samuel M. Colcord, Edward Parrish, and J. J. Thomsen, to this duty.

The Treasurer's report now being in order, it was read by that officer, and on motion of Mr. Kiersted, was referred by the chair to an auditing committee, consisting of Alfred B. Taylor and William Wright, Jr.

On motion of the Business Committee, the recommendation of the Treasurer in regard to the suspended list of members in arrears, was referred to the committee appointed to consider the subject of the admission of members, &c.

The report on the Progress of Pharmacy being called up, the Chairman, Mr. Maisch, proceeded to read such portions of it as would give the Association an idea of its contents and arrangement, which occupied a considerable time.

Mr. Parrish remarked in reference to the zeal and perseverance of Mr. Maisch, and moved that the report be accepted, and referred to the Executive Committee to be published in full, and that the thanks of the Association be presented to Mr. Maisch.

[This Report occupies 120 pages of manuscript, and differs from the previous reports in having the subjects classified,—the materia medica under natural orders—the Pharmacy under the general heads of preparations, as powders, pills, mixtures, etc.—and, from the portion read by the Chairman, we infer not only that it is a valuable compend from the Journals, but that it has cost a great amount of labor and perseverance to complete it. It will be seen further on that the Association have manifested their approval of this Report by an honorary award of fifty dollars to the Chairman.]

The Executive Committee proposed for membership Daniel C. Robbins, of New York, and John C. Savery, of Philadelphia.

A ballot being ordered, the tellers reported them to be duly elected.

Mr. Maisch stated that Prof. Wiggers, of Gottingen, had sent to the Association "Canstatt's Jahresbericht," or Annual Report on the Progress of Pharmacy and collateral sciences in all countries, for the year 1860, in exchange for the volume of this Association, and remarked that the book contained little information of American Pharmacy, our Pharmaceutical Journals being but little known in Europe, except through the English Journals, which but rarely extract from them.

The Committee on auditing the Treasurer's Account reported that they had examined the account and found it correct, whereupon the report of that officer was adopted, and directed to be published in the Proceedings.

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[The Treasurer reported a balance of cash in hand, after paying all expenses of publication, etc., for the last meeting, of $675.]

Mr. Parrish, after apologizing for so frequently speaking, desired to know when probably this session would adjourn, as it would be a suitable time to visit the Academy of Natural Sciences between the sessions. He also referred to an excursion up the Delaware, which it was proposed to carry out to-morrow afternoon, should the convention adjourn in time. He then moved that when this session adjourns, it shall be at 12½ o'clock P. M., which after some discussion was agreed to.

The Chairman of the Business Committee brought up the matter of advancing the amount of the annual contribution, and moved that the subject be postponed until next year. Mr. Taylor said that many of the members would soon be exempt as life members, and he desired to see that clause of the constitution altered, to prevent a failure in the funds of the Association.

No action was taken upon either of these propositions.

The Business Committee brought forward the following resolution, which was passed.

Resolved, That the Chairman of the Executive Committee be authorized to employ a phonographic reporter and clerical assistance when necessary to carry out the details of publication for the Association; and that the Treasurer be authorized to pay the bills accruing therefrom.

The session then adjourned.

Third Session.—Thursday Afternoon.

The meeting was called to order by the President near the time adjourned to, when the Secretary read the minutes of the morning session, which were corrected and adopted.

Dr. Squibb of the Business Committee, brought forward a resolution to discontinue the Committee on Adulterations.

Mr. Colcord hoped the Committee would be continued.

Mr. Wright, of New York, thought the adulteration of medicines was sufficiently extensive to warrant such a Committee.

Mr. Mayer referred to Article 4th, Section 3d, of the Constitution, wherein the duties of the Committee on the Progress of Pharmacy are stated, and asked whether that Committee would not be sufficient to carry out the duties of the Committee on Adulterations.

Mr. Kiersted suggested that the title of the Committee should not be changed, as it was quite appropriate.

Mr. Parrish offered the following amendment to the resolution of Dr. Squibb:

Resolved, That the Committee on Adulterations be discontinued, and a Committee of five be appointed, to be called "The Committee on the Drug Market," whose duty it shall be to report annually the fluctuations in the supply and demand of drugs, the variations in quality, and adulterations and sophistications coming under their observation, or reported to them by others; and that they be authorized to make report on any adulterations and sophistications of immediate interest, through the pharmaceutical journals as soon as practicable after its discovery; and that all members are requested to furnish information of the kind required, to the Committee, without unnecessary delay.

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Mr. Taylor stated his wish that the amendment would prevail, as it would be far more interesting. The Committee on Adulterations had never accomplished the intention of their organization.

Mr. Milhau stated that since the value of drugs had been so much enhanced, there was more sophistication than ever, and gave instances showing the need of being on our guard to detect them. He hoped that a Committee would be authorized, and that they be requested to report from time to time in the Journals of Pharmacy.

Dr. Squibb here withdrew his motion, when the Chair stated that the subject before the meeting was the resolution of Mr. Parrish.

Mr. Wright moved that the title of the committee, be the "Committee on Adulterations and the Drug market."

Mr. Wiegand thought the title sufficiently comprehensive to take in all that was necessary; that it was not needful to include articles out of our sphere of action. The motion of Mr. Wright having failed, the resolution of Mr. Parrish was fully brought up and after some little discussion passed unanimously.

Dr. Squibb here stated that the Business Committee (consisting of himself, Mr. Procter and Mr. Carney,) was not a standing committee, but organized last meeting on motion of Mr. Meakim to facilitate business at that time, and was directed to hold over till this meeting, to bring up unfinished business, and if thought advisable it would be better to appoint a new committee.

The question being taken on this suggestion, it was agreed to, when the President appointed the following gentlemen as the Business Committee for the ensuing year, viz: Dr. Edward R. Squibb, of Brooklyn, N. Y., S. M. Colcord, of Boston, and John J. Thomsen, of Baltimore.

The Chairman of the Business Committee now brought forward the matter of the general Index to the first eight volumes of the Proceedings, which Mr. T. S. Wiegand, of Philadelphia, was by resolution requested to prepare, and which had required much labor to complete. On motion the paper was accepted, and the thanks of the Association given to Mr. Wiegand for this laborious service.

Mr. Taylor suggested that it should be bound separately, and not incorporated with the volume of Proceedings, as it was no part of that.

Mr. Parrish moved that a committee of two be appointed to examine the Index prepared by Mr. Wiegand, and report at a future sitting, which was agreed to, and Messrs. A. B. Taylor and J. Faris Moore were appointed by the Chair for that duty.

The Business Committee then suggested that the Scientific Queries be now proceeded with, which was carried.

To accommodate Mr. Wiegand, who desired to leave, query No. 35, relative to Medicinal Spirits, was first called up, to which he read a reply, which was accepted and referred to the Executive Committee. To query No. 37, "on Commerce in Quackery," Mr. Wiegand stated that he had not been able to prepare a reply.

Query No. 1. Relative to Morphia and Opium Smoking. Mr. Procter verbally stated that he had experimentally commenced the subject as regarded

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the volatility of morphia, but that in regard to the precise conditions of heat in which opium is placed in the process of opium smoking he had been met by difficulties that had discouraged him from proceeding further, and that he had therefore abandoned the subject.

Query 2. Relative to Japanese wax—accepted by Thomas A. Lancaster, of Philadelphia, received no reply.

Query 3. On Oil of Benne (Ol. Sesami,) as a substitute for olive oil in pharmacy, was replied to by James T. Shinn, of Philadelphia.

Query 4. On the production of Tartar in the wine region of the Ohio valley, being called for, the President read a paper from Mr. W. J. M. Gordon, of Cincinnati, to whom it was referred, enclosing a letter from Mr. Graham, President of the Wine Grower's Association of the Ohio valley—both of which were referred for publication.

Mr. Maisch thought we should encourage the wine growers and dealers to save the tartar deposits. The dependence of this on foreign countries could be in time in great measure relieved if we take some action. We should address the Association, stating how important it was to them to save the tartar as a source of profit with but little trouble. Mr. Maisch was invited to produce the draft of a resolution and submit it at a future sitting.

Query 5. Relative to American Aconite root was not replied to by Mr. Tilden, of New Lebanon.

Query 6. On Arsenical Pigments, accepted by B. J. Crew, received no reply.

Query 7. Relative to a permanent solvent for Cantharidin, accepted by Wm. R. Warner, was not answered.

Query 8. On Garancin—directed to B. J. Crew, was not replied to.

Query 9. Relative to Chenopodium, received no written reply, but Mr. Moore stated that Mr. Balmer, who had accepted the question, had engaged in its investigation, but was not yet prepared to report, and requested its continuance to him, which was agreed to.

Query 10. Relative to the nature of the active principle of Capsicum, was not replied to by Mr. F. L. John, its acceptor.

Query 11. Relative to Conium seeds, referred to Mr. Fish, received no reply.

Query 12. Relative to the resinoid of Colocynth, accepted by John Faber, of N. Y., received no reply at the meeting, but subsequently a written paper (with specimens) was received by the president from Mr. Faber, and will be incorporated in the Proceedings on the authority of a resolution adopted later in the sessions.

Query 13. Relative to the Oil Wells of Pennsylvania, etc., accepted by G. W. Weyman, of Pittsburgh, being called up, Mr. Procter informed the meeting that the acceptor had investigated the subject, and had visited the oil region for that purpose, and was nearly ready to report, when the loss of his assistant, who had enlisted, prevented its completion and his appearance at the meeting, and therefore requested a continuance of the subject. Mr. Procter wished the paper to be published in the Proceedings if finished in time.

Dr. Squibb and Mr. Mayer objected.

Mr. Parrish advocated the suggestion.

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Dr. Squibb, urged that previous action of the Association had required all papers for the Proceedings to be completed before presentation. Perhaps this was a special case. The object was to have perfect reports so as not to delay the publications of the Preceedings. He therefore moved that the question be continued to Mr. Weyman for another year—which was agreed to.

Query 14. Was postponed for the present, Mr. Bullock being absent.

Query 15. The President read a reply to this query on cotton seed oil, from Wm. J. Watson, of Brooklyn, N. Y., accompanied by two specimens of the oil.

Query 16. Regarding the therapeutic properties of Propylamin, accepted by Dr. Donnelly, was not replied to.

Query 17. Relative to a test for the genuineness of extract of Cannabis Indica, accepted by Mr. Procter, was not replied to, but the acceptor stated that his experiments were yet incomplete, and desired that he might have his results incorporated in the Proceedings if completed in time.

Mr. Allinson offered the following resolutions, which was passed.

Resolved, That the Executive Committee be authorized to insert in Volume X. of the Proceedings, such essays in answer to queries as may be completed in season, and as may in their estimatian possess sufficient present importance to render it desirable.

Query 18. Relative to Honey, referred to F. L. John, was not replied to.

Query 19. As to the best manner of dispensing phosphorus, was replied to by Mr. Faber in a paper received too late for the meeting.

Query 20. On the Veratrum Viride, was replied to by George J. Scattergood in a paper which elicited much commendation from Mr. Parrish and others, and several queries were put to the writer in regard to the chief points of his paper,—viz: the fact that the sedative power of Veratrum viride is owing more to a resinoid matter accompanying veratria than to the veratria itself.

Query 21. On Copaiba, referred to Prof. Carson, received no reply.

Query 22. On the Cod-Liver Oil trade was not answered by Mr. Blatchford, of Rockport, Mass., to whom it was referred.

Query 23. Relative to Sugar-Coating Pills, etc., accepted by Mr. Stearns of Detroit, received no reply.

Query 24. Relative to Convolvulus panduratus, was continued to Mr. Lemberger, of Lebanon, Pa., at his request.

Query 25. Relative to Celandine, was continued to Mr. Bedford.

Query 26. On the tannin-value of our indigenous astringents was not replied to by W. R. Warner, its acceptor.

Query 27. Mr. Mayer was ready to answer this query, but wanted it postponed till to-morrow morning, on account of the light.

Query 28. On the statistics of the trade in Castor Oil being called up, Mr. Mayer stated that he had been promised full statistics by a person in the business, who had failed to produce them. A large quantity of this oil is made in Jersey City, but those engaged in it are not disposed to give information. The seed is imported free of duty, the best being used for oil, and the refuse, with the cake from the press, for manure.

Query 29. Relative to the acrid principle of Castor Beans, was not replied to by Mr. Warner.

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Query 30. What is the true botanical source of Southern Prickly Ash bark? Prof. Thomas, to whom this question was referred, sent no reply.

Query 31. On the influence of new remedies on pharmaceutical progress, was replied to by Edward Parrish.

The Committee appointed to examine the Index gave a report, which was adopted.

The Reporters say the Index will probable occupy forty-five printed pages, and they recommend it to be printed and placed at the end of the volume of Proceedings for 1862, but that it be paged separately, so that those who desire it may have the Index bound separately.

The Business Committee suggested that a Committee be appointed to examine the specimens on exhibition and report at a future sitting, which was carried. And the Chair appointed J. Faris Moore, George J. Scattergood and Ferd. F. Mayer to that service.

M. Parrish moved that a Committee of five be appointed to propose queries for the ensuing year. It was suggested and agreed to that the President act as Chairman of this Committee, and that he appoint the remainder of the Committee. (A motion to adjourn now prevailed.)

Fourth Session—7½ o'clock P. M., Aug. 28th.

The President called the meeting to order and the Secretary read the minutes of the last session, which were adopted.

The President announced the following as the Committee to prepare subjects for investigation next year,—viz.: William Procter, Jr., John M. Maisch, Charles Bullock, J. Faris Moore and P. W. Bedford.

Query 32. On Anilin dyes, was not replied to by Mr. Weyman.

Query 33. On Tartaric acid and the tartrates. Mr. Maisch stated that he had devoted much time to this subject, and had made much progress with it, feeling interested in the researches, but that he had been so occupied in the preparation of the Report on the Progress of Pharmacy as to be totally unable to write out his results. He proceeded to give, verbally, a detailed account of them, and then asked that the query be continued to him till next year, which was agreed to.

Query 34. On the availability of the Tomato as a source of citric acid, was not replied to by Thomas A. Lancaster, of Phila.

Query 36. What course should be pursued by pharmaceutists in relation to adulterated liquors. Henry F. Fish, of Waterbury, Conn., in a letter addressed to the President, made a partial report on the subject. The letter was referred to the Executive Committee, and the subject was continued to Mr. Fish.

Query 38. On the leaves of the Ricinus, was not answered because of the death of the acceptor.

Query 39. On Anacahuita wood, not replied to by Mr. Caspari.

Query 40. On the present sources of Senega and Spigelia, was replied to at the last session by Mr. Dohme in an explanatory letter.

Query 41. On the production of Elaterium in the United States, was replied to by Prof. Thomas, and the paper referred for publication.

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Query 42. On pharmaceutical apparatus, was answered by Edward Parrish.

Mr. Bullock being now present, an answer to Query 14 was called for. He stated verbally that it was almost impossibls to find wood creasote of authentic character, it being generally impure carbolic acid. The Messrs. Dupont had informed him that they ceased to find it profitable to make wood creasote when it was below $4 per pound; and also that their crude creasote was much more effective for burns than the present commercial article.

Dr. Squibb said he had used Merck's creasote for burns and deemed it excellent, which he felt sure was carbolic acid.

Mr. Bullock had had creasote, which was sold as wood cseasote, that crystallized in winter.

Carbolic acid had been sent from London to the Surgeon's Department for use in the army as a disinfectant; and, when mixed with gypsum, as a disinfectant powder. But Crace Calvert says it is not a disinfectant, only antiseptic.

Mr. Parrish had had applications for odorless creasote from dentists, but could not get it, and wished to know if arsenious acid was soluble in that liquid. The dentists use such a mixture with morphia for destroying the dental nerves. Pure carbolic acid is not odorless.

Mr. Maisch thought Merck's creasote was from wood, as there is no coal region near him; but at his prices it could not be made from wood, and coal tar is easily transportable.

Query 44, to Mr. Shivers, received no reply.

Query 45. On Arnica, to Dr. Henry T. Commings, was not replied to.

Query 46. On the American species of Cantharis, referred to T. Chapman Hill, was replied to in a paper read by the President.

Query 47. Dr. Squibb stated that he had no reply to this query relative to a pharmaceutical still, and wished to abandon the subject, yet he proposed in lieu to read a paper on a subject formerly given to him, relative to bleached morphia salts, which was read and referred for publication.

Mr. Wright stated that in a large hospital in New York, unbleached quinine was preferred, and Dr. Squibb had examined it and found it to contain more quinia than the white salt.

Dr. Squibb also read a volunteer paper on Scammony, which was accepted and referred for publication.

Query 48. On Arrowroot, was replied to by Evan T. Ellis.

Some general discussion ensued after reading this paper, on the subject of this fecula, in which St. Vincent Arrowroot was spoken of as equal in real value to the Bermuda variety, though of less commercial value.

Query 49, to Dr. Battery, elicited no reply.

Query 50. This query was read at the following session, it having been delayed by post.

Query 51, to Mr. Tilden, was not replied to.

Edward Parrish exhibited a small apparatus for testing the relative explosibility of different lots of coal oil to to detect benzine.

The Chairman of the Business Committee brought forward a matter of delinquency of a Boston member, but action was postponed until to-morrow.

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It was moved and carried that when we adjourn it be till to-morrow morning at 9 o'clock.

The Business Committee brought up from the list of unfinished business the subject of an act of incorporation, and the committee appointed to report amendments to the drug law. It was moved and carried that the subjects be dismissed, and Committees be discharged from further service.

The Committee to report on a certificate of membership was indefinitely postponed.

The subject of offering prizes for valuable elaborate papers was then brought forward by the Business Committee from the last annual session, and after having been discussed, it was concluded that, at least for the present, the object of the Association could be attained by special resolution to meet the cases that might arise.

The following preambles and resolutions were then offered and unanimously carried:

Whereas, The Report on the Progress of Pharmacy having now necessarily embraced a period of two years, involved an unusual amount of labor; and whereas, the Chairman of that Committee has not only cheerfully given his talents, time and labor to the work, but has systemized and perfected the report to a degree which must reflect great credit upon the Association. Therefore

Risolved, That the Treasurer of the Association be directed to hand to the Chairman of the Committee on the Progress of Pharmacy, Mr. John M. Maisch, the sum of fifty dollars, as a prize offered by the Association in honorable recognition of his services in the report of this Committee; and that the thanks of the Association be and are hereby also given him.

Resolved, That a copy of this preamble and resolutions be given to Mr. Maisch by the Secretary.

Whereas, By resolution of the Association at its last annual meeting, it was decided to have a general Index of the Proceedings prepared up to the year 1860, and that a full set of the Proceedings were given to the member who should accomplish the work, as a complimentary prize for the labor involved; and whereas it has subsequently appeared that a full set of the Proceedings was not in possession of the Association; therefore

Resolved, That in appreciation of the time and labor bestowed upon the general Index by Mr. Thomas S. Wiegand, the Treasurer be directed to procure a bound copy of Muspratt's Illustrated Cyclopædia of Chemestry, and present it to Mr. Wiegand with the thanks of the Association, as a complimentary prize offered for the work accomplished by him.

Reslived, That a copy of this preamble and resolutions be sent to Mr. Wiegand by the Secretary.

On motion of Mr. Parrish, it was carried, that to-morrow, at 11½ o'clock A. M., be designated for considering the next place of meeting; when, on motion, the session adjourned.

Third day—Fifth Session, Aug. 9th, 1862.

The meeting having been called to order by the President, on motion of A. B. Taylor, James T. Shinn was appointed Secretary *pro tem.*, during the absence of the Secretary.

On motion, a preamble and resolution were brought forward, read and discussed, relative to an idividual, now a member, in Boston, who has prostituted

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the Certificate of the Association and the names of its officers to further the sale of his quack preparations, in violation of his written signature of agreement to uphold the objects of the Association, in article 1st, section 5th, of the Constitution.

After considerable discussion of the merits of the case, a vote on the reosolution for the expulsion was directed to be taken by ballot.

The Chair announced, on the ballot being rendered by the tellers, that it proved unanimous in favor of the resolutions, and the Secretary was directed to notify him of the action of the Association.

The Executive Committee reported the names of A. W. Newton, of Bristol, Bucks County, Pa., J. C. Hughes, of Pottsville, Pa., and George Y. Shoemaker of Philadelphia, as candidates for membership. They were balloted for and duly elected.

Mr. Maisch now presented the following preamble and resolutions, which were passed unanimously:

Whereas, It has come to the knowledge of the American Pharmaceutical Association, that the tartar produced from American wine, has hitherto been thrown away as valueless by the wine growers, therefore

Resolved, That we regard the production of tartar from American wine of great importance, on account of the extensive uses to which that product is applied in Pharmacy, domestic economy and the arts; that we believe that crude tartar and purified (cream of) tartar will always meet with ready sale; and that the wine growers will advance their own interests and assist in developing the resourses of American Agriculture by making the experiment of saving the tartar.

Resolved, That the Corresponding Secretary be directed to furnish a copy of this pramble and resolutions to the President of the Wine-growers' Association of the Ohio valley.

The Committee to whom was referred alterations in the Constitution in reference to membership, and the suspended list, reported the following resolution.

Resolved, That in view of the disturbed state of the country, the publication of the suspended list for the present year be omitted, and that the Treasurer be requested to correspond with those members, by circular or otherwise, and ascertain their views of continuing their membership for action at the next meeting.

Resolved, That it is inexpedient to make any alteration in the Constitution for the present with regard to admitting members during the year.

The question was taken on the resolutions separately, and each of them passed.

Mr. George C. Close, of Brooklyn, New York, now read a volunteer paper, on the use of Chestnut leaves for the Whooping Cough, and exhibited the dried leaves and a fluid extract prepared from them. The paper was referred to the Executive Committee for publication.

At the request of the President, Mr. Milhau, first Vice-President, occupied the Chair for the remainder of the session.

Mr. Mayer now proceeded to read his reply to query No. 27, on Phosphomolybdic acid as a test for alkaloids. Mr. Mayer illustrated his remarks by some experiments. The paper was referred to the Executive Committee for publication.

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Mr. Procter now read the answer of Mr. Sharp, of Baltimore, to query No. 50. He also read a letter from Mr. Dohme, of Baltimore, stating why his paper in answer to query No. 40, was not answered. On motion the latter was referred to the Executive Committee for publication if proper.

Mr. Procter stated that he had received a communication from William S. Merrill, of Cincinnati, in regard to the active principles of Hidrastis Canadensis, and though directed to the Editor of the American Journal of Pharmacy, the paper contained a request that it be submitted to the Association. He believed the paper would be proper for the proceedings by a change of direction. It was accompanied by a number of beautiful specimens of Hidrastia Berberina, Xanthoxylin, Sulphate of Sanguinarina and other salts, by way of illustration.

After some discussion the paper was not received, on the ground of its not being directed to the Association. Subsequently this action was reversed by the adoption of the following resolution:

Resolved, That the communication received by the President from Mr. Merrill, in regard to Hidrastis &c., be referred to him (Mr. Procter) to be modified for publication in the Proceedings.

Alfred B. Taylor, Secretary of the Committee of Revision and Publication of the new Pharmacopœia, having at the request of the President prepared a few notes, gave an interesting outline of the Proceedings of that Committee during the two years and a quarter that it has been engaged in the work of revision, mentioning their action in regard to weights and measures, Percolation, Powders, and many of the preparations that had been introduced. Mr. Taylor observed that his remarks must be considered strictly verbal, and not to be printed in the Proceedings, as he was not authorized to do so.

The Business Committee now brought forward the subject of the next place of meeting, and offered a resolution, but after considerable discussion by Messrs. Colcord, Squibb, Milhau, Bedford, Kiersted, Procter and others, the resolution was withdrawn, and the following offered by Mr. Colcord adopted:

Resolved, That when this Association adjourns it shall adjourn to meet on the second Tuesday of September, 1863, at such place as the President and Executive Committee shall determine, due notice being given in the proper Journals.

The Committee on Specimens on exhibition, presented the following Report:

Among the preparations of a pharmaceutical character, we find most conspicuous the fine collection of elixirs, wines, syrups, and glyceroles; the lozenges, pastilles, and other articles exhibited by Edward Parrish, of Philadelphia, who also exhibited an ingenious apparatus for the ready preparation of suppositories.

H. W. Lesley, of Bristol, exhibits preparations of blackberry root and berries, accompanied by an explanatory paper.

James T. Shinn, exhibits specimens illustrating his paper on oil of Benne.

Messrs. Powers and Weightman, of Philadelphia, are represented by a number of their finer preparations of the alkaloids of cinchona, and opium, and metallic chemicals.

Dr. W. H. Pile, exhibits a case of Hydrometers, Alcoholmeters, Thermometers, and other graduated instruments, which show the talent employed on, and the excellence of the manufacture. Edward Parrish exhibits a compact Gas Furnace for pharmaceutical purposes.

A neat nursing bottle is exhibited by Hastell & Letchworth; J. D. Lynde

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has a patent self-acting valve stopper for ærated water-bottles; Wright, Smith and Piersoll, an ingenious apparatus for testing coal oils as to their safety for use in illuminating.

There is likewise on the table a fine collection of the Zinc ores used by the Lehigh County Zinc Company, of Pennsylvania, deposited by Prof. Robert Bridges. J. F. MOORE, Chairman.

The subject of a certificate of life membership was brought forward by the Business Committee as a recommendation of the late President, but the proposition was not agreed to.

At the request of the President, Vice-President Milhau announced the following as the Committee on the Drug Market, viz:

Edward R. Squibb, M. D., of Brooklyn, *Chairman;* Wm. Procter, Jr., of Philadelphia; Samuel M. Colcord, of Boston; Chas. Bullock, of Philadelphia; Alphæus P. Sharp, of Baltimore.

The following Report of the Committee to prepare queries for investigation next year was now read by the Chairman as follows:—

1. Is there a principle in Chenopodium anthelminticum analogous to Santonine, or does the medicinal power of this plant depend wholly upon its volatile oil? *Continued to James Balmer, of Baltimore.*

2. Is there a crystalline active principle in Capsicum, or does it owe its pungency to a soft resin? *Accepted by Edward Parrish, of Philadelphia.*

3. What progress will have been made during 1862–63 in the collection of tartar in the wine region of the Ohio Valley?
Accepted by Mr. J. M. Gordon, of Cincinnati.

4. What is the relative activity of the root of Aconitum napellus grown in the United States, and that imported from Europe, based on their yield of Aconitia, and what objections, if any, exist to the economical culture of the plant in the United States? *Accepted by Wm. Procter, Jr., of Philadelphia.*

5. What is the best permanent solvent for Cantharidin suitable for making a Pharmaceutical preparation for blistering?
Accepted by J. Faris Moore, of Baltimore.

6. What are the advantages of the seeds of Conium maculatum, as regards uniformity of medical power, as a basis for the medicinal tincture?
Accepted by George C. Close, of Brooklyn, N. Y.

7. The oil wells of Western Pennsylvania—the quantity and quality of oil they afford at present, their prospective value, and the geological characters of the formation wherein the oil is deposited.
Continued to George W. Weyman, of Pittsburg.

8. Does wood creosote exist in the market? to what extent? and what are the objections to the substitution of the former by carbolic acid?
Continued to Charles Bullock, of Philadelphia.

9. Has Propylamin as it exists in Ergot any power to produce uterine contraction; and if so, does commercial Propylamin from herring pickle possess a like power? *Referred to Prof. Robert P. Thomas, of Philadelphia.*

10. What is the relative proportion of tannin in the indigenous astringents of the United States, used for medicinal and other purposes?
Accepted by James T. Shinn, of Philadelphia.

11. What is the true botanical source of Southern prickley ash bark?
Continued to Prof. Robert P. Thomas, of Philadelphia.

12. An essay on Tartaric Acid and the medicinal tartrates in their chemical and pharmaceutical relations. *Continued to John M. Maisch, of Brooklyn.*

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13. What course should be adopted by Pharmaceutists in view of the present state of the liquor market, as regards factitious brandies and wines?
Continued to Henry F. Fish, of Waterbury, Conn.

14. What is the best form and material for a still for use by pharmaceutists, of from two to four gallons capacity, appropriate for being heated by gas or stove heat, and which shall be suitable for the recovery of alcohol in making pharmaceutical preparations. *Accepted by Wm. Procter, Jr., of Philada.*

15. What is the most convenient and economical arrangement by which the apothecary can quickly and reliably ascertain the strength of acid and alkaline liquids for pharmaceutical preparations?
Referred to Dr. Wilson H. Pile, of Philadelphia.

16. What is the best method of keeping garlic during the autumn, winter, and spring in the pharmaceutist's shop, so as to prevent its growth?
Accepted by E. W. Sackrider, of Cleveland, Ohio.

17. What are the actual values of the commercial varieties of Buchu leaves, based on the proportion of volatile oil they will yield?
Accepted by P. W. Bedford, of New York.

18. It has been alleged that Ipecacuanha is now adulterated with Euphorbia Ipecacuanha, Gillenia trifoliata and other substances. What are the best means of detecting these adulterations of this important drug?
Accepted by William Wright, Jr., of New York.

19. Why should not Lactucarium be economically produced in the United States for the supply of commerce?
Referred to Henry A. Tilden, of New Lebanon, N. Y.

20. An essay on the best practical means of protecting volatile oils from the injurious action of light and air in the apothecary shop, during the course of their being dispensed. *Accepted by Alfred B. Taylor, of Philadelphia.*

21. An essay on the actual merits of Sanguinaria as a therapeutic agent based on trials with Sanguinarina and its salts; and its claims to a prominent position in the Materia Medica.
Referred to Prof. Robert P. Thomas, of Philadelphia.

22. An essay on Fluid Extracts—as regards their preparation, permanence, and eligibility as officinal preparations.
Accepted by William Procter, Jr., of Philadelphia.

23. What are the relative merits of White and Black Mustard for use as Sinapisms? *Accepted by Prof. J. Faris Moore, of Baltimore.*

24. On the pharmaceutical preparations of the Strychnaceæ (Nux Vomica, Ignatia Amara, &c.,) and on the methods in use for the extraction of their active principles. *Accepted by Prof. Ferd. F. Mayer, of New York.*

25. What is the constitution of the several impure Oxides of Iron used in medicine (as Sub-Carbonate, Iron Rust, &c.,) now in the market?
Accepted by Ferris Bringhurst, Wilmington, Del.

26. What are the best methods of detecting the adulterations of olive oil?
Accepted by Jonas Winter, of Baltimore.

27. Do any of the samples of sulphuric and other mineral acids of American origin contain appreciable amounts of Arsenic?
Accepted by Prof. John M. Maisch, of Brooklyn, N. Y.

28. The green sand or marl of New Jersey, according to analysis, contains among other constituents from 10 to 12 per cent. of potassa. Query. Can this potassa be economically extracted sufficiently pure for pharmaceutical and commercial use, so as to compete in price with that derived from wood ashes?
Accepted by George J. Scattergood, of Philadelphia.

29. Is the process of dialysis applicable in Pharmacy? If so, in what instances may it be employed? *Accepted by Wm. Procter, Jr., of Philada.*

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30. Observations on the "Internal Revenue Law," in its relations to the business of the druggist and apothecary.

Accepted by Edward Parrish, of Philadelphia.

The Committee also recommended the adoption by the Association of the following as *prize essays* for general competition; the prizes to be adjudged by a Committee to be appointed by the Association at its meeting in 1864:

1. For the best essay on Cimicifuga racemosa, in its chemical and pharmaceutical relations and medical uses.

2. For the best essay based on a practical and successful experiment on the culture and preparation of Elaterium in the United States, accompanied by a specimen of the product of not less than 120 grains.

Respectfully submitted, WILLIAM PROCTER, JR., *Chairman.*
JOHN M. MAISCH, J. FARIS MOORE,
CHARLES BULLOCK, P. W. BEDFORD.

After some discussion in reference to the prize essays, the Report was unanimously adopted.

Owing to the hurried manner in which these Reports have necessarily to be produced during the sessions, the Chairman of the Business Committee moved that the Committee on questions for investigation be made a standing special committee to report at the next meeting of the Association, which was adopted.

Edward Parrish here made some interesting remarks on the art of skeletonizing leaves, and its relation to the apothecary's business, and exhibited a beautiful case of bleached specimens called "the Phantom Bouquet."

On motion of the Business Committee it was ordered that all periodicals, papers, exchanges, etc., received by the officers or Executive Committee, be placed at the disposition of the Committee on the Progress of Pharmacy, for use in compiling their Report. The following resolution was then passed:

Resolved, That the thanks of the Association are heartily tendered to the Philadelphia College of Pharmacy and the Pharmaceutists of Philadelphia, for the hospitality and kindness extended to the members of the Association during their visit to this city.

The Secretary then read the Minutes of all the sessions, which after amendment were adopted. The Association then on motion adjourned, to meet, in accordance with the resolution previously adopted, on the second Tuesday of September, 1863, at such place as the President and the Executive Committee may determine upon. P. W. BEDFORD, *Secretary.*

Editorial.

THE AMERICAN PHARMACEUTICAL ASSOCIATION met in Philadelphia on the 27th of August. It was not our fortune to be present, being at the time absent. We understand the attendance was small, but as large as could be expected when the excited condition of the country is considered, and the immediate proximity to a draft occupying the attention of the public. We publish full Minutes from the *American Journal of Pharmacy*, and believe they will be highly interesting to our readers.

Much interesting matter, coming under the heads of SELECTIONS, PHARMACY, and EDITORIAL, is unavoidably crowded out of this number.

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THE

JOURNAL OF MATERIA MEDICA.

DEVOTED TO

Materia Medica, Pharmacy, Chemistry, &c.

Vol. IV.] OCTOBER, 1862. [No. 10.

Narcotics.

BY JOSEPH BATES, M. D.

ATROPA BELLADONNA.—*Continued from page 373.*

Whooping-Cough.—DR. STILLE remarks, "although previously employed in the treatment of this disease, belladonna was first systematically used to cure whooping-cough, by SCHÆFFER and WETZLER, in 1810; the latter treated thirty children, all of whom were cured, between the eighth and fifteenth day after begining to take the medicine. He found the most favorable period of the disease for commencing the treatment was between the sixteenth and twentieth days, and the proper dose to be a quarter of a grain of the root, morning and evening, for a child under one year of age. These results were confirmed by many writers, and particularly by MEGLIN, and by KAHLEISS, in 1827. Several years later, Dr. SAMUEL JACKSON, then of Northumberland, Pa., prescribed the remedy in numerous cases of whooping-cough, and with complete success, directing fractional parts of a grain of the extract at intervals of three hours, until dilatation of the pupil took place, when the medicine was omitted altogether, or given in smaller doses. This treatment was preceded by antiphlogistic measures. CONSTANT, in presenting a summary of his observations, at the Children's Hospital, in Paris, in regard to the treatment of whooping-cough, gives the preference to belladonna over all other means; and his report shows substantial ground for this

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preference, inasmuch as the progress and decline of the disease corresponded with the suspension and resumption of the remedy. Dr. THOMPSON, of London, bears a similar testimony upon this subject. M. FUSTER, Professor in the University of Montpellier, employed vapors of an infusion of belladonna leaves by inhalation, and with uniform success." Dr. CORSON, of Norristown, Pa., says: "During the last seventeen years, I have given the extract of belladonna to hundreds of patients, from ten months to fifty years of age, and am firmly convinced that it has a greater control over whooping-cough than any other remedy in common use." Many observers have found it almost inefficacious, (says STILLE) at the commencement of an epidemic, but very successful during its decline. So INGMANN states, that under such circumstances, it far surpasses all other medicines. M. M. RILLIET and BARTHEZ do not appear to have used it, but call attention to the fact that WENDT and GŒLIS have both seen mischievous consequences result from its use. STILLE says: "No other writers allude to such effects, except as following an injudicious exhibition of the medicine, or the omission to suspend it when dilatation of the pupil comes on; even these disquieting symptoms are stated to have been temporary."

BRETONNEAU advised to be administered to a child of five years old, immediately before breakfast for two days, a pill containing one-twelfth of a grain of the extract; if no effect is observed by the third day, he raises the dose to one-eighth of a grain. He advises on the fifth day the same dose, and on the eighth day, if no effects are produced, one-third of a grain may be given, and continued for three days, or gradually increased until the pupils are effected, or the cough declines; at that point the dose should, for a time, remain the same. M. TROUSSEAU remarks that insomnia is apt to be produced by belladonna in this disease, and he usually gives opium in combination with it. Cases of whooping-cough are reported, which were distinctly palliated when this drug was taken, and aggravated when withheld. On the whole, says Dr. STILLE, it would appear that belladonna is positively curative in whooping-cough which has passed the inflammatory stage, but that in certain epidemics, it has signally failed, in the hands even of those who have before prescribed it with success. "The practitioner should be careful to watch its effects, lest they become

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alarming to the patient's family, or inflict even temporary mischief."

Belladonna applied to a blistered surface, has been promptly and completely efficient in some cases of laryngitis which were more or less of a spasmodic character.

Braithwaite's Retrospect, Part 42, p. 98, contains an article on the successful treatment of whooping-cough, by increasing doses of sulphate of zinc and extract of belladonna, by Dr. FULLER, physician to St. George's Hospital.—[In the Medico-Chirurgical Transactions, Dr. FULLER publishes a paper on the tolerance of belladonna by children. The following abstract of a paper read before the Harveian Society of London, contains a sufficient epitome of that article.] Dr. FULLER commenced his paper by calling attention to the commonly received opinion, as stated in most books on the subject, that, "Whooping-cough must run a certain course." He combatted this opinion by reference to the results of his own experience, and then proceeded to point out the causes which had led to its general adoption. Among these he mentioned the inefficiency of the treatment ordinarily employed, and the neglect of all measures likely to subdue the tendency to spasm on which the continuance of the whoop depends. Dr. FULLER regarded the complaint as consisting essentially of bronchitic irritation, usually not very severe, accompanied by reflex spasm of the air-passages, and expressed his opinion that in most cases the spasmodic symptoms are those which demand our most serious attention. Not only is the spasm a most painful symptom, but is one which may give rise to life-long mischief. His object, therefore, had always been to subdue the spasm as speedily as possible, and the practice which, until the last twelve months, he had found most successful for the purpose, was the administration of sulphate of zinc in rapidly increasing doses. (This Part was published 1861.)

Dr. FULLER then referred to the discovery he had made as to the tolerance of belladonna by children, which is recorded in a paper published in the Medico-Chirurgical Transactions, and he briefly stated the facts which are there detailed in *extenso*, as to the amount of belladonna which may be given with safety, and the conditions which should be observed in its administration. The conditions he specified were, first, the remedy should be given at least four times daily, and should be administered at first in small doses,

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which may be increased day by day or on alternate days, by a corresponding amount. He pointed out that mere dilatation of the pupils need not be regarded as a bar to its administration, and stated that if the precautions just referred to are observed, the daily dose of the extract of belladonna may be safely increased up to a scruple, or half a dram, without the production of any unpleasant symptoms. He then proceeded to state that he had brought these facts to bear on the treatment of whooping-cough, and from the conjoint use of sulphate of zinc and extract of belladonna, in rapidly increasing doses, had obtained results exceeding his most sanguine expectations. Rarely had he found the whoop to last above twenty-one days, and in some instances it had subsided in ten days. The mode in which Dr. F. proceeds, is to give the zinc and belladonna as soon as the whoop declares itself. If the attack is accompanied by much febrile excitement, and bronchitis, and irritation, he prescribes a cough-drop containing a dram of antimonial wine and a dram of ipecacuanha wine to two ounces of water, and, if necessary, applies a blister to the chest. Of the cough-drop a larger or smaller amount is given according to circumstances. To children under three years of age, he usually begins by giving one-sixth of a grain of belladonna, and half a grain of sulphate of zinc, four times daily; and to children above that age one-quarter of a grain of extract of belladonna and a grain of sulphate of zinc. These remedies are given in a solution in water, and the dose of each substance is increased by a corresponding dose daily, or on alternate days; so that the child by taking one-quarter of a grain of the extract and one grain of the zinc, at a dose, would be taking one grain of the extract and four grains of the zinc at a dose, either on the fourth, the sixth, or the eighth day, according to the rapidity with which the dose is increased. Dr. F. concluded by citing cases illustrative of the value of this treatment; assured the members of its safety, and urged its general adoption.

In Braithwaite's Retrospect, Part 21, p. 141, M. DEBREGNE has a paper on this subject. He says, "belladonna has been eminently useful in the epidemics of whooping-cough which he has observed; but the success attending its administration depends on the observance of the following rules. The dose of belladonna should be proportioned to the number of months representing the child's age; and the quantity to be taken in twelve days, (the ordinary dura-

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tion of treatment,) will be five centigrammes (three-fourths of an English grain) multiplied by the number of months. Thus, for an infant six months old, the dose will be thirty centigrammes (four and a half grains) in twelve days; for one of two years and a half, the dose will be one and a half gramme (twenty-three grains) in the same period. For children above six years of age, the quantity of three grammes (forty-six and one-third grains) is not exceeded. The medicine is always given three times in the day. For instance, the prescription for a child three years old would be powder of the root of belladonna, two grammes; to be devided equally into twelve powders, of which one is to be given daily, in three divided doses. If there be vomiting, it should be given immediately after a fit of vomiting and coughing. Recourse should not be had to this remedy, until the inflammatory element has been overcome by leeches, emetics, etc.; in other words, it is not to be employed before the tenth or fifteenth day, when the cough will have assumed its specific character.

Dysmenorrhœa.—Dr. GOLDEN BIRD found this agent very efficacious when there was no organic disease of the uterus, but shreds were discharged at the menstrual period, and severe pain was experienced at the same time in the hypogastric region. When the patient is anæmic or leucophlegmatic, one-fourth of a grain of extract of belladonna with one grain of sulphate of zinc may be given every two or three hours until the pain ceases. For plethoric patients ipecacuanha is more suitable than the sulphate of zinc. Between the catamenial epochs, purgatives should be administered, and other means taken to improve the general health. BRETONNEAU employed this remedy topically under similar circumstances. Dr. G. BIRD'S paper on dysmenorrhœa treated with belladonna was published in the London Medical Times, also in the Boston Med. and Surg. Journal, Vol. 30, p. 282. Dr. B. says in cases where the pain is seated over the region of the uterus, in the lower part of the abdomen, he has given the belladonna internally, taking care that the extract is properly prepared, and has invariably found it successful; great relief is experienced at the next menstrual period; greater still at the succeeding one, and a cure is finally accomplished. By removing, (says Dr. BIRD,) the irritable condition of the uterus, and curing the dysmenorrhœa, the pseudo-pleurisies and pseudo-peritonitis, for which bleedings

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were formerly, unfortunately, so largely practiced, will soon get well. The cases in which the pain is seated chiefly in the loins, do not yield to the employment of belladonna. This, Dr. BIRD considered was owing to congestion of the uterus. Fortunately (he says) the cases that are most remarkable are the most frequent.

Dr. WALLER (as stated in the Lancet, March 23, 1844, p. 27,) has found belladonna alone, both externally and internally, in cases of dysmenorrhœa to afford temporary relief. He applies it externally in the form of a plaster of the simple extract spread on adhesive plaster.

He has seen the belladonna in conjunction with hydrocyanic acid, in the proportion of one-quarter to half a grain of the extract to three minims of Scheele's preparation, four or five times a day, of great benefit in cases of severe gastrodynia.

Constipation.—TROUSSEAU declares belladonna to be the remedy par excellence for habitual constipation. It does not purge nor produce loose stools, but only renders defecation easier, and sometimes in the dose of a quarter of a grain the extract will produce several stools. As soon as the bowels become regular the dose of the medicine should be gradually diminished. Cases illlustrative of the efficacy of this treatment are reported by FIESSENGER, who, however, made use of suppositories containing the extract of belladonna, by BLACKE, and by FLEWRY. (STILLE).

COPLAND recommends small doses of belladonna in alvine obstructions (p. 477).

Strangulated Hernia.—In truly spasmodic affections, or those in which there is abnormal, and, for the most part, paroxysmal muscular contraction, belladonna has been extensively and beneficially employed. DAVID reports two cases in which the internal use of belladonna led to the reduction of strangulated hernia, which seemed to demand an operation. He gave half a grain of the extract every half hour. In one case three, and in the other four doses were taken.

In the Gazette Hebdomaire, there is reported a case of inguinal hernia, which was relieved after taxis had failed, by the administration of the extract of belladonna, in three or four grain doses every half hour. The tincture of belladonna was also employed locally by means of a flax-seed poultice.

In the same journal there is also a report of a case in which bel-

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ladonna was administered, with very great relief to the patient. In this there was no protrusion of the bowel, but, from the symptoms, obstinate constipation, great pain, stercoraceous vomiting, etc., it was evident that there was complete occlusion of the bowel. The belladonna in this case was employed after an operation for artificial anus had been decided upon. The remedy was used in the form of an ointment, by friction; and as soon as complete intoxication was induced its good effects were perceptible.

American Journal, Vol. 15th, p., 533: DR. FRANKEL has successfully treated six cases of strangulated hernia, with the extract of belladonna. Five of these cases were crural hernia in females. The sixth was an umbilical hernia.

The author was called upon to visit a boy some ten years of age, July 8th, 1862; found the little patient in great distress; and upon an examination of the abdomen readily discovered the cause of his distress, which was inguinal hernia. I made every endeavor to reduce it, but failed in accomplishing it. I then made an ointment of belladonna and lard, equal parts, and spread a small plaster, and applied it to the hernial tumor, and waited its results. In less than half an hour my patient became quiet and easy; and his pupils some dilated. I then directed my attention to the hernia, and found a spontaneous reduction. The plaster was immediately removed, and the surface cleansed with tepid water; nevertheless the pupils remained dilated for twenty four hours.

Rigidity of the os uteri during labor.—It was first recommended to overcome this condition by CHAUSSIER. He as well as several other writers have testified to its virtues in overcoming this annoying incident of parturition.

This condition of the os uteri may readily be controlled by an ointment made of belladonna and lard, and with the finger apply it immediately to the mouth of the uterus.

In the American Med. Monthly may be found a paper of B. F. BARKER'S on belladonna shortening labor. DR. BARKER gives a table of 147 cases of labor, in which this remedy had been used for dilating the os externum by comparatively painless contractions. The extract was administered in quarter-grain doses, two or three times daily, commencing about two weeks previous to the close of gestation.

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Plethoric patients took tartar emetic with belladonna—three grains of the former, eight of the latter, in two ounces of syrup of orange peel (one ounce of the tincture of orange peel, and one ounce of water), a teaspoonful three times a day. With some the following formula was used: compound tincture of cinchona, three ounces; syrup, one ounce; ext. of belladonna, eight grains. Other combinations for special indications. A very great difference appeared in the susceptibility of patients to the influence of the the agent, owing to the difference in the purity and strength of the article. One would seem to have double the potency of another, without any corresponding difference in the appearance, color or odor. In some cases the dose had to be diminished, but in most instances it could be gradually doubled, or even tripled. Dryness of the throat, slight uneasiness or giddiness of the head, dimness of the vision, are indications to diminish the dose. Not one of the children was still-born, and in none of the cases was there post-partum hæmorrhage or retention of the placenta. In one the function of lactation was entirely absent; in two others the mammary secretion did not appear until the fifth day.

The following cases are mentioded in the Boston Medical and Surgical Journal, Vol. 30, p. 502:—"Premature delivery. Six and a half months gone. Called twelve hours after birth of fœtus, to deliver placenta. Placenta adherent. Uterus collapsed upon the same. Could not dilate the os tincæ with my finger. Used the ungt. belladonna to the os and neck; in thirty minutes the uterus was dilatable. Delivered with the blunt hook. Patient had a quick recovery."

Another:—"Protracted labor; rigidity of the os tincæ; alarming hiccough and vomiting, with sudden cessation of expulsive pains. The slightest touch of the finger to the os, or pressure of the child from change of position, would induce the hiccough and increase the vomiting. Applied the ungt. to the os tincæ. In five minutes the hiccough cased, the vomiting soon followed, the rigidity relaxed, and the patient fell into a quiet sleep. With the aid of savin and ergot, in an hour and a half the patient was delivered."

The author, R. P. STEVENS, closes by stating that in his materia medica there is not a more potent drug than the Atropa belladonna.

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Laryngitis.—Dr. STILLE says that belladonna applied to a blistered surface, appears to have been promptly and completely efficient in some cases of laryngitis which displayed more or less of a spasmodic element; and as an internal remedy for nervous coughs, especially for those which, independently of any local disease of the respiratory apparatus, disturb the rest at night by their persistence and violence.

RICHARD HUGHES (Surgeon to the Brighton Orthopædic Hospital,) has a publication on the influence of belladonna on the pneumogastric nerve, in Braithwaite, part 42, p. 296. He closes his able communication as follows:—"The practical results from the above facts will be, that we shall be led rationally to the use of belladonna and its congeners in all affections of the pneumogastric nerve. Laryngismus stridulus must, therefore, be added to the above mentioned morbid conditions. I have lately used belladonna (in combination with nitric acid) in every case of common cough which has come under my notice, and with far more marked success than I have obtained from any other remedy. I trust that a more extended trial may add fresh support to the view here advocated."

Tetanus.—Dr. HUTCHINSON has reported many cases of traumatic tetanus, as cured by the extract of belladonna. Dr. H. reports that the specific action of the medicine upon the pupils was followed by an abatement of the spasms, but this was not until the dose was increased from half a grain or a grain of the extract every three hours, to four grains every two hours. It was then gradually diminished. The treatment continued about one month.—(Am. Jour. of Med. Sci., Apr. 1858, p. 340.)

VIAL mentions three cases of cure by this agent, and ERNEST reports others. Belladonna is said to have cured idiopathic form of tetanus. The following case is taken from the Gazette Medicale;—published also in Braithwaite's Retrospect, Part 22, p. 90.

"M. BRESSE, surgeon at the Military Hospital at Rennes, proposed, in 1848, the treatment of traumatic tetanus by the application of tincture of belladonna, and reported a case, in which it had been successfully emyloyed in the Gazette Medicale de Paris of Sept. 30, 1848. M. BRESSE has now placed on record another case, which has come under his notice. The patient, one of the Garde Mobile, received a wound on the 20th of March; tetanic

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symptoms appeared on the 5th of April. Frictions of belladonna were commenced on the 5th, and by the 12th the patient was out of danger. Imprudently exposing himself to cold, the tetanic symptoms returned in the muscles of the back, but were quickly removed by again having recourse to frictions. The tincture employed was composed of five parts of extract to eleven of alcohol, and was applied all over the body, and more particularly over the rigid parts. M. BRESSE adds, that another practitioner has arrested trismus, which he feared would proceed to general tetanus, by the same means."

From the same work, Part 39, p. 315, a short notice is taken from Med. Times and Gazette, April, 1854: "Belladonna may be given in large doses, in tetanus. Give one grain every two hours, and increase this dose to one and a half grains, using occasionally a suppository with three grains in it. Watch the pupil; if it dilate, gradually desist from the belladonna.

From the same work, Part 10, p. 29: "In tetanus larger doses of belladonna are endured and required for its relief than in cases of neuralgia. The enormous dose of five grains of the extract of belladonna was successfully administered in one case, and in another the dose was gradually increased, until eventually four grains were given, and repeated every two hours. In this case, after a certain quantity of the medicine had been administered for a certain time, the system appeared to acquire a tolerance of it, and, from this point of improvement the symptoms remained stationary until an increased quantity was administered, when speedily a manifest advancement again took place, and this continued for a certain period, until a larger dose was again demanded, in order still further to influence the disorder. This course was very well marked and positive, and this it was which encouraged and induced Dr. H. still further to increase the dose of belladonna, until eventually the tetanus was entirely subdued."

(TO BE CONTINUED.)

GREEN WITHOUT POISON.—The use of arsenical preparations for producing a bright green in ornamental confectionary has often produced dangerous symptoms. It has been recently noticed that a bright green may be prepared by indigo and saffron, which in the small quantities required, may be considered innocuous.—*Med. and Surg. Reporter.*

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Cholera Infantum.

By Owen Brown, M. D., of Providence.

Read at the Quarterly Meeting of the Rhode Island Medical Society, Oct. 2, 1861.

This disease occurs in New England in the hot weather of summer and early autumn, and is so far familiar to most physcians, as to require no very minute definition. It is characterized by diarrhœa, vomiting, and great prostration of the system. The discharges from the bowels are variously colored, as green, dark brown, or resembling rice water. The odor is often very fetid, similar to that of putrescent meat, arising, perhaps from the absence of the antiseptic influence of healthy bile, in due amount, in the intestinal canal. The fever which is usually present, occasionally assumes a remittent type. The bills of mortality in most cities, and the experience of physicians in the localities where it prevails, testify to its fearful fatality.

History.—It is doubted if there is another disease, which annully destroys so many lives, about which so little has been written. Authorities tell us that in our large cities, during the summer months, about one fourth of all the deaths, among children, arise from this disease. During the year 1860, five hundred and fourteen children are reported as having died from it in Philadelphia alone, which is perhaps not more than the average mortality from this cause, in most of the large cities in tihs country.

Though it causes this frightful destruction of infant life every year, yet the name of Cholera Infantum, or its synonyms, is not found in the indices to Braithwaite's Summary of Medicine and Surgery during the six years from 1854 to 1860, thus leaving the inference that not an important article was written upon this subject during all that time. In the Year Book of Medicine and Surgery, of the Sydenham Society, for 1859, it is true that two articles upon the Pathological Appearences in Cholera Infantum are alluded to; both were published in that year. In one of these articles, the writer states that in many cases, the sinuses of the dura mater were found "filled with fresh blood coagula, and with fibrinous formations more or less adherent and firm," and hence arrives at the conclusion that the rapid loss of water from the blood favors the formation of venous thrombus in the brain, and thus occasions sudden death, in many cases. In the other paper alluded to, the author relates four cases, in all of which he found inflammation of the colon, which he considers a constant attendant upon the disease. Besides these articles, the Year Book alludes to a paper upon Cholera Infantum, in the United States, as published in New York in 1858, and also to a paper published in the Gazette des Hopitaux, in 1858, entitled Weaning,—its Relations to Cholera Infantum. Perhaps the most valuable article yet written upon Cholera Infantum, is by Dr. James Stewart, published in New York, in 1857. This paper, however, is not intended to present a biblography of this subject. In the varions medical periodicals, there are remarks upon the "Diarrhœa of Infants," which,

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from the kindred nature of the diseases, affords much valuable information relating to the subject immediately before us.

Dr. Condie states that "the disease occurs as an epidemic in all the large cities, throughout the middle, the southern, and most of the western States, during the season of the greatest heats, making its appearance and ceasing, earlier or later, according as the summer varies in the period of its commencement and close." "In the more southern States, it appears as early as April or May, and frequently cases of it occur until late in September."

Dr. Copland remarks, "that in some very unhealthy climates within the tropics, the children born of European parents seldom reach two or three years, without having an attack, and in some places scarcely one will survive this age, if suffered to remain in them. It is certainly not an infrequent malady among children in the English metropolis."

Symptoms.—The disease, like Cholera, is often preceded by diarrhœa, but not unfrequently it commences at once, like cholera morbus, with vomiting and purging, and death sometimes occurs within twenty-four hours. More commonly it comes on with frequent diarrhœa, attended with frequent vomiting, with marked pyrexia, and the case may be protracted from one to several weeks, ending in complete irritability of the stomach, collapse, and, perhaps cerebral effusions.

The diarrhœa may linger for months, even, and with the approach of cold weather, yield to treatment, or the recuperative powers of the system may then, alone, prove adequate to recovery.

Pathology.—This has often been minutely and ably described, and it is not the intention of the writer to go into detail, nor could he state anything original upon this head.

In cases of an early death from an attack, it is known that the mucus membrane of the alimentary canal is unusually pale, the liver frequently congested, —sometimes enlarged, and observers are perhaps unanimous in the statement that the *mucous follicles* of the alimentary canal are enlarged. Dr. Horner describes the appearance of the enlarged follicles as "resembling a sprinkling of white sand upon the surface of the mucous membrane."

In more protracted cases, the mucous membrane of the stomach and intestines exhibits evidence of inflammation in red points, and the glandular follicles are enlarged. Dr. Horner "found the mucous follicles enlarged, and even ulcerated, both in the small and large intestines, and in one case, ulcerations of the surface of the membrane in the jejunum.

Pathologists appear to be united in the opinion that there is present, *at first*, merely an *enlarged* condition of the *mucous follicles*, with irritation of the mucous membrane, and congestion and enlargement of the liver. At a more advanced stage, inflammation of the gastro-enteric mucous membrane, with, sometimes, ulceration and softening.

At almost any period of the attack, the meninges of the brain are liable to be involved, and serous, or sero-sanguineous, effusion to take place.

Causes.—The disease is known to be almost wholly confined to children

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under two years of age. The *mucous follicles* of such are "liable to be *largely developed*," and the mucous membrane is peculiarly sensitive. During dentition, the buccal mucous membrane, as well as the salivary glands, perform their functions of secretion and excretion with unusual activity; by reflex action, the nervous irritability produced by the pressure of the advancing teeth against the gums, or against the nervous filliments distributed to the gums, would excite the mucous membrane of the stomach and intestines to morbid action; any indigestible substances taken as food, may increase this action, and the relaxing and debilitating effect of the hot, close, damp air of cholera infantum localities, together with the unascertained atmospheric poison absorbed into the system from such localities, complete the conditions essential to the production of this fatal disease.

It is well known that during the heat of summer, certain sudden changes, as from dry and warm to damp, sultry, "close" weather, will give origin to numerous cases of cholera morbus in adults; it is believed, that in large cities, corresponding atmospheric changes are attended by a large increase of cases of cholera infantum among children,—that causes which would, in adults, have produced cholera morbus, in the more sensitive and impressible digestive organs of the child, induce cholera infantum.

NATURE.—The pathological conditions throw much light upon the nature of this affection, rendering it very safe to regard it as essentially, at first, a *gastro enteric irritation*, passing into gastro-enteritis, with the concomitant lesions, involving especially the mucous follicles of the alimentary canal, complicated with congestion and enlargement of the liver; and made much more virulent by a depraved condition of the blood, induced by atmospheric toxæmia.

TREATMENT.—At the onset of an attack, the indications, reasoning from the pathology and nature of the disease, are:

1st. To quiet nervous irritability, whether arising from dentition, or other cause affecting any part of the digestive organs, and which, by reflex action, may induce vomiting or diarrhœa.

2d. To arrest the increased secretion and excretion of the mucous follicles, and thereby arrest another source of diarrhœa and vomiting.

3d. To control the fever induced by the blood poison, and give the system an opportunity to recover itself.

4th. At a more advanced stage to guard against collapse, or to arouse the system from it when it has supervened.

5th. The treatment of the sequelæ.

To meet these indications, the following remedies, variously combined, have been found very efficient:

Opium, or its preparations; creosote, calomel and mercury with chalk; aromatics, as aromatic syrup of rhubarb, infusion of cinnamon, or of spearmint; astringents, as rhatany, in some of its preparations, and acetate of lead; to these may be added quinia, iron, mineral acids and ice.

To a child under two years, one twenty-fourth to one sixteenth of a grain of powdered opium, may be given, with half a grain to a grain of calomel, to

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promote the action of the liver; or where there is not much gastric irritation, one or two grains of Dover's Powder, with a grain of mercurialized chalk, may fulfill the first indication to quiet nervous irritation.

The addition of a grain of acetate of lead, to either of the above, restrains the action of the secretory surface of the intestines, or constringes the mucous follicles, and at the same time, perhaps, allays febrile excitement.

Creosote is known to have a powerful effect in restraining serous discharges, and it seems highly probable that its anti-septic properties may be of advantage, since the discharges are so often highly putrescent; besides, it is often useful in allaying gastric irritation.

Aromatics, acting as local stimulants of digestive organs, often prevent or overcome the want of tone which gives origin to morbid excretion.

Any successful attempt at arresting the diarrhœa and vomiting, is liable to result in an increase of fever, with great thirst; the profuse discharges from the stomach and bowels deprives the blood of its watery part, and in this manner, thirst is also induced.

Ice, given in small quantities, at frequent intervals, most happily controls the fever, and allays the thirst.

Since the preparation of this paper was commenced, the writer has had under treatment a child of some twenty months, sick with cholera infantum, which lay, part of the time, in a semi-unconscious condition, but was disturbed at intervals by pain, or aroused by thirst, and then so eager for fluids as to take nearly indifferently, unpalatable medicines or grateful drinks. When a lump of ice was placed in this childs mouth, with the first cooling sensation, it awoke from its lethargy, and its face fairly beamed with pleasure. From that moment it began to amend, and recovered from a nearly hopeless condition.

Dr. Mauran, of this city, relates an instance which occurred to him many years ago, when ice was not so much used in practice as now. He was called to a child nearly in the collapsed stage of cholera infantum. It was vomiting most profusely a dark substance resmbling coffee grounds. It entreated water from every one who approached and vomited it instantly. Dr. M. called for some ice, and a lump was placed in the child's mouth, and retained with great satisfaction. Regarding the case as hopeless, and seeing the comfort the ice afforded, the Doctor sat by and gave it piece after piece, until, in a very brief time, the child had swallowed an entire saucer full. The ice was continued during the night as the child desired it. This patient rapidly recovered.

The fourth condition, or tendency to collapse, or collapse itself, is, of course, best met with hot applications, cordials and stimulants, if the stomach will bear them; but too often little remains which can be done with much hope of recovery.

In the Transactions of the Medical Society of the State of New York, for 1861, is an article upon "Dermoid Medication," which, it is said, "has often proved successful, in cases of cholera infantum, when all other means had failed." The skin is first cleansed with soap and warm water, and excited by frictions. Then a flannel, sufficiently large to cover the abdomen, is saturated

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with a solution of one scruple of corrosive sublimate, in six fluid ounces of alcohol. The flannel is sprinkled with laudanum and laid upon the bowels; over this is placed another layer, saturated with a hot infusion of spices. The whole is covered with oiled silk, and suffered to remain from twenty-four to forty-eight hours. Ice, iced champaigne, &c., to be given internally.

The *sequelæ* are most likely to be chronic diarrhœa, with anæmia, or marasmus. For the treatment of these affections, quinia, or quinia and iron, seem most admirably adapted, as the following:

℞ Quiniæ et Ferri Citratis..... ʒ ij.
Syrupi Zingiberis.....f ʒ iv.
Tincturæ Opii.....f ʒ ss.

Misce.—Dose, half a teaspoonful once in four hours, to a child under two years old.

It is familiar to the profession, that after opiates have failed to restrain a diarrhœa, quinia, or quinia and iron, will most effectually accomplish this end. In an able article in the *American Journal of Medical Sciences*, No. lxxxiii, N. S., p. 53, the writer says of "the more obvious and important effects of quinia, none is of so much importance as its power of giving contractile action to the capillaries. This property of quinia gives it a power over almost all forms of venous and capillary congestion, which, perhaps, it is impossible to obtain by any other known agent." In concluding his remarks upon the known antagonistic effects of opium and quinia, he says, "he is forced to the conclusion, that they are not so far antagonistic that they should never be administered together."—*Ibid, p.* 58.

Since the above was written, the writer has met with the following extracts, from the Transactions of the Illinois State Medical Society, for 1860:

Speaking of the Diarrhœa of Children, Dr. J. O. Harris says:—"In this disease, I find that after exhausting all the usual remedies advised by our standard authors, and by my brother physicians, that quinine, in *full* doses, frequently repeated, acted (or seemed to act) admirably. I thought at the time that I was prescribing empirically, and now do not pretend to explain the modus operandi of the remedy. I only know this, that my patient recovered under the use of quinine, and I still prescribe it, when I see no particular indication for its use."

Dr. J. S. Rich of Florida, in an article upon Cholera Infantum, says he was remarkably successful in treating it with large doses of quinine. The following was given to his own child:

℞ Quiniæ Sulphatis.....grs. v.
Hydrargyri Chloridi Mitis.....grs. iij.
Olei Terebinthinæ.....gtt. xx.
Mellis.....f ℈ j.

Misce.—Give the whole at a dose.

After about twelve hours, the same dose was repeated, omitting the calomel. He says, "I could not detect any other effect of the quinine than a most profound and salutary sleep; the pulse, which had been much too frequent, irreg-

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ular, thread-like and fluctuating, became slow as in health, and firm; the skin was continually moist, with warm perspiration; the kidneys acted most copiously; the bowels acted twice, but the last showing that the liver was performing its healthy functions. The most remarkable change was the disappearance of the general cadaverous aspect and *grave-yard odor*. The return of appetite and general powers of digestion, was extraordinary."—*Philadelphia Med. and Surg. Jour., May* 24, 1862.

The following is a summary of treatment which the writer has found happily to fulfill many of the conditions suggested in this paper.

In the early stages, the following mixture is given, unless there are manifest contra-indications, including all the ingredients, or omitting those not apparently required:

℞ Syrupi Acaciæ ..... f℥ iss.
Syrupi Rhei Aromatici ..... f℥ ss.
Syrupi Krameriæ ..... ℥ ss.
Spiritus Ammoniæ Aromatici ..... f℥ j.
Tincturæ Oppi ..... f℥ ss.
Creasoti ..... gtt. iv–vi.

Misce.—To a child of one year or under, give half a teaspoonful once in four hours, gradually increasing the dose to a teaspoonful.

If this does not check the discharges, give at alternate doses, one twenty-fourth to one sixteenth of a grain of powdered opium, with half a grain of calomel, or omitting the first preparation, give the last once in four hours. If still more restraining effect is desired, add to the last half a grain of acetate of lead.

At any stage of the disease, if there is evidence of acidity in the primæ viæ, one or two grains of the bicarbonate of soda are added to the above powder, of course omitting the acetate of lead, when bicarbonates are given. Ice, as has been before suggested, or infusion of spearmint, cold, when there is not much gastric irritability. If there is much tenderness of the obdomen, mustard cataplasms, carefully guarding against vesication, or cloths wet with mustard and vinegar, pepper sauce, or alcohol, are applied to the abdomen. When there are head symptoms, mustard cataplasms to the feet.

Dr. Condie states that minute doses of calomel rubbed up with sugar, and placed upon the tongue, will usually allay the vomiting.

Of course this treatment is not in any manner intended to suspend the paramount advantages to be derived from pure air, or a change of air, when practicable.—*From the Chicago Med. Jour., Sept.*, 1862.

Alcohol in Puerperal Hæmorrhage.—Rapid and prolonged intoxication is recommended in the *Gazette des Hopitaux* as a remedy in cases of profuse hæmorrhage depending on purpura. A most efficient combination for this purpose is made by adding to the alcoholic stimulant full doses of Sp. Terebinth.—*Chicago Medical Journal.*

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[From the American Medical Times.]

Foreign Correspondence.

By Prof. Chas. A. Lee.

London, July 20, 1862.

Having devoted considerable time of late in visiting various Lunatic and Idiot Asylums, and other public institutions, I will present a notice of some of the more important.

One of the pleasant excursions which I made in company with the members of the "Social Congress," was to "Earleswood," near Riegate, Sussex, to visit the asylum for idiots, established in 1847, through the efforts of the Rev. Andrew Reed, D. D., well known and highly honored in the United States.

The edifice is very large and handsome, highly ornamented, and extremely well adapted to the object for which it was erected. It is situated in a very picturesque and undulating region, under the highest cultivation, and adorned with the most tasteful mansions, villas, gardens, parks, and cottages. An extensive and beautiful lawn slopes gently away from the front entrance, interspersed with beds of flowers in full bloom, and large shade trees, while the grounds and farm lie on the right hand, laid out with excellent taste and with real simplicity of style. Great and successful efforts have been made to throw an air of cheerfulness around this beautiful home of the poor imbecile—this model English asylum—which cannot fail to exert a most favorable influence in meliorating the condition of the weak-minded and idiotic, and stimulating his feeble powers both of mind and body. No finer situation for a building could, perhaps, have been found, and art has done as much as nature to beautify the place. Even its proximity to the railroad, and the frequent passing of the trains, tends much to enliven the scene and give a degree of animation to the place, which is not without its effect on the inmates. The main building stands apparently on a terrace, raised considerably above the adjacent grounds, having a fine, imposing entrance, with an extensive wing for the males on one side and for females on the other, and commanding an extensive and beautiful view. On entering we passed at once into a large, lofty, and well ventilated hall, kept with the utmost neatness. On the left is the large reception room, its walls ornamented with drawings the work of the pupils, many of them displaying a very cultivated taste and practised hand. It has been truly said that the repositories of the work of the blind and the idiot manifest greater advance of our age than galleries of the highest art and most gifted ingenuity. Under the guidance of Dr. Down, the able and gentlemanly resident physician and superintendant, we were conducted throughout the building, taking on our way the spacious and airy dining hall and the play-rooms for the various classes, all of which were well furnished for their respective purposes, which were fully, and in detail, pointed out. The inmates are carefully classified, each individual being assigned to one of this series of rooms according to apparent mental power. Amusements are provided also for all, according to capacity, and with special suitability to awakening the dormant faculties. In this way

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companionship is cultivated and cheerfulness promoted. There were six classes in all, being graduated according to mental dovelopment. Here various games are constantly going on, in which a lively interest seems to be taken, thus stimulating the latent powers into activity. There was an air of comfort, and even happiness, in the inmates which was quite unexpected, while the features were often lighted up by intelligence and feeling. The games and amusements pursued in these rooms are of a quiet kind; while in the basement there is a large play-room for wet days, where foot-ball and ninepins are played. Out of doors I noticed abundant provisions for cricket, skittles, and swings, as well as all kinds of healthy gymnastics. Experience has fully established the fact, that the true way to develop the intellect of an idiot is to begin with the bodily faculties; for as soon as these are quickened and improved the long-latent mind gradually appears, and the obvious reason is that these regulated bodily exercises imply the exercise of will and attention, of memory and judgement, which, by frequent acts of repetition, become gradually developed and strengthened. The mind of an imbecile seems to be veiled by an imperfect, defective organization, and a consequent feeble and deranged nervous system; and as soon as these are improved the mind proportionately beams forth.

It is unnecessary here to point out the different lessons and modes of instructing the idiotic, as they are generally sufficiently well known.

Object lessons are those generally employed, and a museum of natural curiosities serves as a most important and valuable aid. The great desideratum is to create an interest, to awaken attention, and that is successfully attained by lectures with illuminated figures of animals, dissolving views of places, and astronomical and other diagrams and objects of natural history shown by powerful lanterns. We next visited the workshops, into which the inmates are introduced as soon as is deemed expedient, and in which they soon find great gratification. Some of the younger and least advanced were picking fibres from the cocoa for mats, all of which covering for the floors were made in the institution. This is an excellent discipline, as it teaches them to sit still, while they, at the same time, employ their hands in useful work; thus awakening attention, eliciting regulated bodily movements, and gradually evolving the mental and bodily powers. Considering that all their motions have heretofore been involuntary, it is by no means strange that their will is dormant, as well as all their other faculties, and that such simple means as picking cocoa-fibre should prove such an excellent discipline and means of improvement. The only wonder is that teachers can be found having sufficient patience to instruct such dull and slow learners. Plaiting the cocoa-fibre is the next step in discipline after picking it, and this requires a higher cultivation of the physical and intellectual powers. The fingers have, by this time, acquired the habit of obeying the will, and so we have figured hearth rugs of pretty patterns turned out, and strong and good mats made which have no marks of inferior workmanship. Regular and well directed diligence marks the conduct of the more advanced classes, while their features assume more the expression of intelligent beings. In other rooms I saw tailoring and shoemaking being carried on with

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a very creditable degree of skill; also basket-making, carpenters, etc. There is a large and beautiful model of a man-of-war, with all its masts, rigging, portholes, etc., made by one of the inmates; every part being arranged and completed with consumate skill and accuracy. The pupils are placed in the different shops, according to the trade for which they manifest the greatest inclination, after being allowed for a time to be lookers-on. They are thus led on, step by step, every success leading to further improvement. What can be more delightful to a human mind than to see a poor idiot showing, with apparent pride, the fruits of his own industry, while he is comforted and encouraged by its being inspected and by a few words of judicious praise?

Although I did not notice, what a recent French writer speaks of having witnessed in a similar institution in France, viz. a little vehicle containing two paralytics drawn by two imbeciles, children, and pushed from behind by two that are blind; yet I saw many hand carriages for cripples unable to walk, and drawn about the grounds by their companions.

The dormitories appeared well ventilated and very neatly kept; the sheets and counterpanes were white ane clean, and everything bore marks of the utmost neatness and cleanliness. The present number of pupils is 320—227 males and 93 females; and their general appearance, health, cheerfulness, and activity, gave the most satisfactory evidence of the bodily and mental care taken of them. I do not see how the sanitary arrangements of the establishment could be improved; nor is it easy to perceive how any better expedients could be adopted for eliciting observation, or training to habits of order and usefulness. The methods employed to teach by cabinets of objects in common use, their form, color, taste, smell, size, weight, and use, were extremely happy and judicious. Nothing, in fact, seems wanting for the instruction and comfort of the inmates. The corridors are decorated with plates, paintings, and engravings, with singing birds in ornamental cages; glass globes containing gold-fish are suspended, and the windows enlivened by baskets of flowers and ferns. Scrap-books filled with prints lie on the tables, and numerous toys are always at hand. I should have stated that as we approached the building, the male and female pupils, in separate columns, each holding a handsome flag, were marching down the lawn in the highest glee, to the music of a splendid instrumental band, composed of the officers and attendants of the institution; it was a beautiful and impressive sight.

There were numerous hopeless cases in an upper portion of the building; but it is a question whether such asylums as these should not be entirely appropriated to such as promise more or less hope of amelioration. Christian benevolence should provide homes for the hopeless insane and idiotic, apart from institutions designed for their cure or relief, as the presence of such exerts an unfavorable influence upon the others. There are many admirable expedients resorted to here for the development of the faculties which are worthy of special commendation, such as playing at shop-keeping, the pretended shop being furnished with rice, nuts, marbles, etc.; some of the pupils acting as customers and some as venders. The customer being supplied with coins of different value, makes his purchases and receives his change,

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thus becoming acquainted with the value and use of money, while the memory, faculty of speech, attention, etc., are all strengthened. Improvement in speech is also aided by the cabinet of objects, the utterance of the names of which includes all the sounds of the English language.

The exercises of drill are varied, lively, and arranged so as to induce care and rapidity of movement, ready obedience to the word of command, and attention to time and tune. There are also classes for teaching the process of dressing and initiating the pupils into all the processes of tying, buttoning, putting on and off the different garments, etc. The girls are taught needlework, some use the sewing machine, and others are employed in household work. Several boys taught in this establishment now support themselves as mechanics. The garden and farm of over 100 acres offer very excellent and varied employment, adapted to different intellectual grades, and affording a sphere of occupation for many whose health would be incompatible with indoor work. A farm seems essential to a school like this, inasmuch as it affords healthful employment, recreatian, and country walks, without intruding on the notice of the neighborhood. A large stock of cows are kept; many of the pupils have been taught to milk, while others prepare the fodder and attend to the cleanliness of the animals. So far as I could learn from a single visit, perfect order and system prevail throughout the entire establishment, which is furnished with all the conveniences and appliances to promote the health, comfort, and improvement and happiness of the inmates, and may, with truth, be pronounced the *Model Idiot Asylum*; not only of England, but of the world.

VENTNOR, ISLE OF WIGHT, July 22, 1862.

Many years ago I read the excellent work of Sir James Clark, "On the Influence of Climate in the Prevention and Cure of Disease," and in that work I remember that this region, called the "*Undercliff*," was especially recommended, as affording a favorable climate for persons laboring under, or predisposed to, pulmonary affections. At that time, this place, now so crammed with beautiful villas, contained only about half a dozen humble cottages, inhabited by poor fishermen; now it is the capital of the Undercliff, crowded with hotels, churches, shops, cottages, and villas, built in every conceivable style, and filling every nook and corner where it is possible to place a building. Sir James spoke of it as one of the most picturesque spots along the coast, as it undoubtedly is; huge hills towering up many hundred feet behind it, while the platform, on which it began to be built, is broken up into several uneven terraces; the ground running in smooth slopes down to the broad smooth beach, mingled, however, with steep, abrupt banks of rock, down which a brawling rivulet hastens on its journey to the sea.

The region which goes under the name of Undercliff, extends about seven miles on the south shore of the island, from Blackgang to Dunnose, consisting of a platform varying from half a mile to a quarter of a mile in width, bounded on the south by the undulating bays and promontories of the channel, and on the north by a perpendicular wall of grey rocks, which form the buttress to a

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range of downs, from three to eight hundred feet high, covered with luxuriant grass, and pastured by innumerable sheep.

We have here all the constituents of a beautiful landscape—rich vegetation, elevated hills, secluded and romantic dells, and ever varying ocean; but we have also a climate differing essentially from that of England, the temperature during winter being much more moderate and uniform than can be found in any part of Great Britain during the same season. Its situation protects it from the north and northeasterly winds, and hence the whole region, from Luccomb Chine to Chale, is peopled with visitors every fall and winter, chiefly from England and Scotland, though some from the United States and the northern parts of Europe. There seems to be but one opinion among those who have spent the colder months in this region, that the climate is on the whole very favorable, and the neighborhood most agreeable to the invalid. Here there is every temptation to take exercise in the open air, for beauty meets the eye on every hand—here, where the green slopes sink deep into bays and valleys, opening like a theatre to the sun and the sea; here presenting a terrace of low land at their feet, which stretches under the shelter of that high perpendicular wall, like a rich garden plot all roughened over with masses of rock fallen in distant ages, and overshadowed with thickets of myrtle, roses, geraniums, heucheras, fuchsias, etc., which all grow wild in great luxuriance and profusion, and need no protection during the coldest seasons. Thorns, chestnuts, and ash trees are abundant; the jagged cliffs are covered with ivy; and primroses, cowslips, and hyacinths, are thickly scattered over the well watered glades. I must not, however, dwell on the beauties of the landscape here presented, which have been pointed out by so many writers, but limit myself to some few observations in regard to the supposed advantages it presents to the pulmonary invalid. Sir James Clark, if I rightly remember (not having his work at hand), represents the climate of Torquay, on the English coast, as softer, more humid, and relaxing, while that of the Undercliff is drier, somewhat sharper, and more bracing. In general, perhaps, this description will hold true, but it is evident from the location of the Undercliff, as may be seen on a map, that this region is pretty fully exposed to the cold, damp, easterly winds, which come down the Channel, and that it cannot be exempt from those sudden atmospheric changes so frequently experienced on the neighboring coast. One disadvantage it must always labor under, which I witnessed and experienced myself, and that is, the excessive dampness occasioned by a condensation of the vapors brought by the northerly and westerly winds, which, striking upon the lofty mountainous downs, roll their thick vapors down the cliffs, saturating everything in doors and out, as if immersed in a vapor-bath. Leaving Ryde in the morning, in the latter part of July, the themometer standing about 60°, and the wind blowing fresh from the northwest, I had no sooner reached the vicinity of the downs and the Undercliff, than the vapors began to roll down the hill like an impenatrable mist, saturating my clothes with wet as if exposed to a heavy rain, and indeed it was often impossible to say whether it was mist or a fine shower; it, however, terminated

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in a continuous, undoubted rain, of some hours duration, while the distant coasts of Hampshire and Sussex were doubtless enjoying a clear, sunny day. Further enquiry satisfied me fully that my surmises, thus originating, were correct, and that with all its other favoring influences, the Undercliff must suffer more or less from atmospheric changes, if not perpetual damp. A lover of the hydropathic system would be delighted with Ventnor, etc., for he would always have his *wet sheets* without extra trouble, and a cold vapor bath any time by removing the dress. Visitors, of whom I have made inquiry, all testify to the great dampness of the climate on the southern shores of the island; and one gentleman at Southampton told me that he never stayed over night at Ventnor without taking cold from sleeping in damp sheets. Now, I am not able to say how great a drawback this feature in the climate of this favorite resort may be, in pulmonary cases, but I apprehend that in true tuberculosis a drier atmosphere will be more favorable. In purely bronchial affections, however, there can be little doubt that such a climate would exert a more favorable influence than one containing less moisture. The soothing, relaxing effects of a moist atmosphere in such cases is well known; while in tubercular phthisis, the progress of the disease would be probably hastened. The fact that a temperature 54° F. was experienced on the 22d of July, while a greatcoat and fires was essential for comfort, proves that during the winter solstice the atmospheric conditions here may sometimes be such as the invalid would be glad to exchange for some other of a different kind. I will, however, perhaps resume this subject, and present more positive data.

VICHY, FRANCE, Aug. 21, 1862.

While our good friend Hanbury Smith is dealing his excellent artificial Vichy water from his two perpetual fountains in Broadway and the Fifth Avenue, let me dip my pitcher into the original source and catch the bubbles as they rise to the surface. Before doing this, however, let us take a brief survey of matters connected wiih the mineral waters of France in general.

There is no country in the world where mineral waters are held in higher estimation than in France. This is shown by the fact, that the preservation and management of all the important mineral springs are under the direct control of the government, and form a distinct bureau under the minister of agriculture, commerce, and public works. They are now under the immediate charge of M. NANTA, Chief of the Division of Mines and Manufactories. He is aided by a *Consulting Hygienic Committee* consisting of nine members, of which M. RAYER, Dean of the faculty of Medicine and Physician in ordinary to the Emperor, is president. Thirteen other physicians of eminence are designated by government to aid in the deliberations and consultations relating to mineral waters; and their names are annually published in connexion with the other officers of State. Besides this, the *Imperial Academy of Medicine* has a permanent standing committee on mineral waters, consisting of six of its most distinguished members, besides a leading chemist. Besides these, there is an *Army Council of Health* under the minister of war, who have a voice also in regard to the use of mineral waters: of this, M. VAILLANT is President and Medical Inspector.

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The Government, moreover, to show its faith by its works, has established nine Thermal Military Hospitals, viz. at Vichy; Bourbonne-les-Bains; Bareges; Amelie-les-Bains; Bourbon-l'Archamhault; Plombieres; Guano (Corsica); Hamman-Mezkhoutine (Algiers), and Bains de la Reine (Algiers):—To these hospitals, both officers and soldiers, laboring under certain kinds of of chronic disease, are sent by the Government until cured, or death has relieved them of their sufferings. Resident medical inspectors and adjunct inspectors are appointed also to all the important mineral springs of France. Besides, there are physicians resident at Paris, whose chief office is to prescribe what mineral waters are best suited to individual cases; these now number forty-seven, besides ten chemists specially devoted to the analysis of these waters. These statements are, perhaps, sufficient to show in what estimation mineral springs are held in France. I may add, however, that in 1861, a prize was offered of one thousaud francs for the best work on mineral waters; and the French Academy of Medicine, at a special sitting, awarded it to Dr. Durand-Fardel, whose work is now a leading authority on the subject; nine silver or bronze medals were also awarded to other writers, and honorable mention made of four more. An Annual of mineral waters and marine baths is also published at the commencement of every year, and has a large circulation.

Public opinion, in France, is opposed to factitious and artificial mineral waters, and they, consequently, have but a very limited sale; if, indeed, they are sold at all. The Academy of Medicine has, indeed, on application, expressed an opinion favorable to lemonade impregnated with carbonic acid gas, but at the same time directed, that if made in leaden or copper vessels, the surface should be well guarded by a thick coating of tin. This is the nearest this learned body has ever come, to giving its sanction to artificial mineral waters. The *Society of Hydrology* of Paris met some time ago to deliberate specially on this subject, but I believe came to no positive conclusion. The immense quantities of the natural Vichy water consumed throughout France, as well as of the natural salts prepared from the water, show conclusively the estimate placed upon these natural products over any artificial productions that could be made.

The view taken of this subject by the leading French chemists is far more rational than one might be led to expect. In this view, chemistry seems to hold the same relation to mineral waters as anatomy does to the human body; it relieves something—not all. They believe that it is essential to study their special action on the living economy. Every mineral water is regarded *as a centre of force*, only when studied and learned by the phenomena manifested under its use, and not by the organic elements simply, that enter into its composition. This is certainly the only rational view, for there may be agents so minute or so combined as to escape the analytic skill of the chemist, but which exert a decided influence over the vital properties. It is therefore impossible ever to form an artificial mineral water identical in composition or effects with that which is imitated. Its demerits and its therapeutical properties may be

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analogous; they can never be identical. They are not, however, without their use, where the natural waters cannot be had. Nevertheless, it must be admitted, that intelligent persons who resort to mineral springs are mainly guided in their choice by a consideration of the principle elements that enter into their composition; and this is the principal office of physicians who reside at such watering places. They prescribe not simply the water, but the substances it contains; nothing is certainly more important than this knowledge except their physiological action. I certainly cannot say with the celebrated Bergmann, that to know the chemical composition of a mineral water is to anticipate experience; most medical writers on the subject state that, in the treatment of diseases, the virtues of mineral waters bear a direct relation to the known elements entering into their composition; yet it must be admitted that they often have a contrary effect to what was anticipated, and that the only certain test of what they will effect is actual experience, and ample trial. In short, as Prof. Paine has so conclusively shown, the body is not simply a chemical laboratory, but a living organism whose vital forces contain chemical elements and chemical affinities, but are never, till death, controlled by them.

There are, in all France, one hundred and sixty-five mineral springs of greater or less celebrity; the most important of which, already stated, belong to and are controlled by the Government.

Vichy may undoubtedly be placed at the head of these, if we consider the reputation it enjoys, and the number of invalids who annually resort hither to make trial of its waters. The Emperor may be said to have taken it under his especial patronage, as the Empress has that of *Eaux-Bonnes*, for he occasionally takes up his residence at Vichy in July, and protracts his stay till late in August, or rather, till the great national fête of the 16th of the month. It is well known that he has been somewhat of an invalid for several years past, and it is generally believed that he finds the use of the waters extremely beneficial. Some idea may be formed of the pupularity of the waters, when I state, that up to the 15th of September, 1861, 16,440 strangers had visited the place, and up to the 20th of August of the present year, 15,483 patients had registered their names, besides 1324 servants who accompanied them. These, as the register shows, came from every country in Europe, and a considerable number from North and South America, and the West Indies. There can be no doubt that some fashionables are attracted hither by the presence of the Emperor, but the vast majority to try the medicinal effects of the waters.

There is nothing attractive in the appearance or situation of Vichy; it is a hot, dusty place, far more so than our Saratoga, while its surroundings are far less agreeable. It consists of the old and new town; the streets of the former narrow and irregular, while the houses are mean and ugly, but the new portion is better laid out, though still without much order or regularity, the houses being built of the same light-colored sandstone which is universally used all over France. It lies on the left bank of the Allier, a moderate-sized river, in summer occupying a tenth part of its ordinary channel; nine hours by express train from Paris on the Orleans line of railway. There are numerous *grand*

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hotels; everything is grand in France; even the principal spring here goes under the name of *Grande-Grille!* The price of board, including rooms and use of the saloon, is from one to three dollars or more per day, according to extent of accommodations. A patient, however, as at our own watering places, can adapt his expenses to his means. All the hotels have a *table d'hôte*, but the patient can resort to a resturant, and thus live at less than half the expense. There are some establishments chiefly patronized by the fashionable, who resort hither for gambling or amusement, such as the hotels cuillermin, de Paris, Germot, &c. Lodgings generally have to be secured in advance; one-half the residents seem to be in the confectionary line, for their shops are filled with pastilles and sugar plums, made of Vichy salts, sugar, and flour, or gum and "*sucre d'orge*," a "digestif alcalin," very much in vogue.

The springs, nine in number, were first taken possession of by Napoleon I. in 1810, who opened a park, and authorized the acquisition of the necessary land. The large establishment was erected in 1820, but it was not till 1845 that the government took entire control of the waters. The second thermal building was erected in 1858. There are large and commodious, and display considerable architectual taste. These are 306 bath rooms, and 39 separate rooms for *douche* baths, which seem to be greatly in vogue. In 1853 the government sold 100,520 bath tickets, and sent out 361,000 bottles of the water. In 1857, 170,405 tickets were given out, including 27,000 gratuitous, and 700,000 bottles of water sold; in 1861, 280,000 bath tickets sold, and 1,250,000 bottles of water sent out and sold, and all this in addition to the immense quantity of the dry salts, extracted from the waters, and the *pastilles*, made for the government from the same salts, and distributed over the kingdom. Thus it will appear that these mineral waters are a source of no small revenue to the government, and are annually becoming more and more profitable. The presence of the Emperor and the increasing pecuniary value of the waters has given quite a spur to improvements recently; manifested by the formation of a new park and ornimental grounds on the banks of the Allier, the construction of a new suspension bridge, the extension of the railroad from St. Germain des Trosses to Vichy, and the erection of many handsome seats and villas in the neighborhood. I visited the large establishment for extraction of the natural salts, which is in charge of a special agent appointed by government, and every precaution is taken to prevent fraud by adulteration or substitution, and the same of the water sent out in bottles. So extensive is this distribution, that there is scarcely any part of the world where the natural Vichy water, or its salts, cannot be had.

The remedial properties must be reserved for my next letter.

ASPHYXIA FROM CHLOROFORM.—Dr. Wm. Marcet, argues in the *Med. Times and Gazette*, that asphyxia from Chloroform is owing not only to its anæsthetic properties, but to its producing spasm of the glottis. He therefore urges, when this occurs, tracheotomy as well as continuous artificial respiration.

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Quinine in Phthisis.

By Dr. R. P. Cotton, of the Hospital for Consumption, Bromton, London.

With the view of testing, so far as practicable, the general therapeutical value of quinine in the treatment of consumption, I prescribed it for twenty-five patients, in various stages of that disease; avoiding, as in all my previous experiments, any selection of cases, and excluding only those unfitted by the existence either of acute symptoms or special complications. The dose consisted, according to circumstances, of one or two grains two or three times a day; and was continued for periods varying from three to ten weeks. Notes were regularly taken by Dr. Harington, resident clinical assistant.

Ten of the patients were in the first, six in the second, and nine in the third stage of phthisis. Sixteen were males, and nine females. Their ages varied from twenty to fifty years.

During the administration of the quinine seven improved *greatly*, five improved *slightly*, and thirteen either did not improve at all or became worse. Of the twelve improved cases, seven were in the first stage, two in the second, and three in the third stage; and, of the thirteen cases in which quinine seemed to be inoperative, three were in the first stage, and ten were the subjects of more or less advanced turbercular softening. Thus it would appear that whatever good may have resulted from the quinine, it was the most decided in the early stage of the disease.

In fourteen of the cases cod-liver oil was taken during at least a portion of the time. There was an increase of weight in ten out of the twenty-five patients; such increase occurring in five who had taken the oil, and in five who had not taken it, but being most marked in the former.

In four cases the quinine appeared to disagree, producing dyspepsia and loss of appetite. In six instances patients who had made little, if any, progress under the quinine by itself, were more or less benefited when steel was added to it. Two of these cases were remarkably good ilustrations of the combined influence of quinine and iron; one was in an early and the other in an advanced condition of disease, but both left the Hospital with every local and general symptom in abeyance, and their health fairly good, after taking for several weeks two grains of quinine twice a day, and a tablespoonful of steel wine immediately after dinner.

From these facts, compared with previous observations on other remedies, the following are the conclusion at which I have arrived:—

1. That although quinine may be well adapted to certain cases in which there is an evident cachexia, it is greatly inferior, as a general remedy in phthisis, to some other tonics, whilst in a few instances it is unsuited to the disease.

2. That the combination of quinine and iron is sometimes very beneficial.—*Med. Times and Gazette; Am. Drug. Circular and Chem. Gazette.*

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Oakum as a Substitute for Lint, in Gun-Shot and other Suppurating Wounds.

By Lewis A. Sayre, M. D., Surgeon to Bellevue Hospital, etc.

I have for many years past been in the habit of using picked oakum, in all cases of suppurating wounds, particularly in connection with opened joints, where the suppuration is excessive. The great number of gun-shot wounds now in Bellevue Hospital, where I use it entirely to the exclusion of lint, has furnished an opportunity for a number of army surgeons to examine its advantages, and they have requested me to make the subject more generally known to the profession through the medium of your valuable medical journal.

One of the objects of lint applied to a suppurating wound, is to absorb the discharge; now as most of the lint is composed either entirely or in a great part of cotton, it acts more like a tampon, or a retainer of the secretion, than as an absorber.

If you take a bale of cotton and immerse it in the river for one month, or even longer, and then remove it, you will find on opening it that the cotton in the centre of the bale is perfectly dry, thus proving that it cannot be soaked through any great thickness, or that it will not absorb moisture. So, when placed over a suppurating wound and left for some hours, it will be found perfectly dry except at the point of contact: acting, in fact, like a bung in a barrel, or a cork in a bottle—to *prevent* the escape of the pus—which necessarily burrows in different directions, thus forming extensive abscesses, and adding greatly to the danger of the patient; and when removed, the pus will gush out in large quantities. Now, if you place picked oakum over these same wounds, you will find after the same number of hours, that the oakum is perfectly saturated with pus, and the wound itself almost perfectly dry and clean —the oakum acting like a syphon, and discharging the contents of the abscess by capillary attraction.

It is necessary to place under the wound a piece of india-rubber cloth, or oiled muslin, for the sake of cleanliness; and in case of much inflammation, by simply wetting the oakum in cold water, and wrapping the oiled muslin around the limb, or wounded part, so as to exclude the air, you have at once the neatest and most comfortable poultice that can be applied to it. In gun-shot wounds, which go through and through a limb particularly if made with the "Minnie ball," the whirl or screw of the ball entangles in its thread the muscular fibres and cellular tissue, and separates them from their attachments for a long distance from the real track of the ball itself.

As the muscle and tegumentary tissues are more freely supplied with blood vessels than the fat and cellular tissue, the consequence is that they granulate much more readily than those other tissues, and will thus often close up the wound, and prevent the free escape of pus, before those parts have perfectly healed, and thus lead to the formation of extensive secondary abscesses. I,

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therefore, in all cases where no blood-vessels prevent it, pass an eyed probe through the wound and draw through it a few fibres of oakum or tarred roap, which keeps it perfectly free, and the tar is a very excellent antiseptic, and removes all unpleasant odor.

A few fresh fibres are twisted on the end of the seton at every dressing and drawn into the wound, and the soiled piece cut off and removed with the dressings.

Another great advantage which the oakum possesses over lint, which in these times of heavy taxation is not to be overlooked, is its cheapness. Lint at the present time costs from $1.25 to $1.35 per pound, whereas the finest picked oakum can be obtained at the "Empire Oakum Works," No. 149 West 39th street, for ten cents per pound. And if it were universally adopted in the army it would save many thousands of dollars to the Government, and I confidently believe the life of many a soldier. And no surgeon who has once used it will ever resort to lint again—particularly if the lint is made of cotton. —*American Med. Times; American Journ. of Pharmacy.*

Alcohol in Snake Bites.—Dr. Dieder's treatment of wounds produced by venomous serpents is by alcoholization. He administers a moderately large quantity, generally from fifty to one hundred grammes for the first dose, of brandy, rum, or other alcoholic liquor, following it immediately with an aromatic infusion which the patient must drink as warm as possible. The patient is to be kept in this state of alcoholization until the local and general symptoms have improved and the pain and swelling partially disappeared, say for twelve, twenty-four hours, or longer. During this period there should be administered hourly about sixty grammes of the warm aromatic infusion, with ten or fifteen grammes of the alcoholic liquor. As soon as the symptoms appear to retrograde, it is sufficient to keep up the cutaneous transpiration by means of warm tisans, and to administer a saline cathartic. If the amendment is followed by a relapse, alcoholization must be again had resort to. This method never failed when employed within two hours after the reception of the wound. The local treatment consists in distending the wound so as to be sure that the reptile's fang is not present, and to cause blood to flow so as to wash out the poison that may have been deposited; a cupping-glass may be used for this purpose. Finally, after having washed it well, compresses of alcoholized water are employed, which should envelop the whole limb, if the poison has made any progress. The subject, of course, is to be kept warmly covered in bed. The same treatment has succeeded in cases of anatomical wounds, which is explained by the fact that alcohol is to ferments what chloroform is to pain.—*Journ. de Chimie Médicale; American Med. Monthly; Cincinnati Lancet and Observer.*

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Action of Opium and Quinine Combined.

In opposition to Dr. Gubler, who maintains that sulphate of quinine and opium are antidotes to each other and ought therefore not to be administered simultaneously, Dr. N. Nivison, of Hector, N. Y., clams the happiest therapeutical results from a combination of the two remedies, precisely in virtue of the fact that they do react on each other. The rapid disintegration of nerve tissues occurring in intermittent and nearly all the severer forms of other fevers, is readily controlled by quinia, which reduces the increased amount of phosphates in the urine and at the same time contributes greatly to the reparative process by its well-known effects on nutrition, so that it may be justly entitled a great conservator of the nervous system in conditions of febrile excitement or nervous prostration. Quinine has also a very obvious power to give contractile action to all parts of the capillary system, thus controlling all forms of venous and capillary congestion perhaps more than any other known agent. It approximates the frequency of the pulsations to the healthy standard, when much too frequent or much too slow; and that it works important changes in the character of the blood itself, is evident from the reduction of uric acid, as well as from the established fact of its defibrinating the blood, rendering the same fluid incoagulable.

Opium is a general stimulant to the vital powers, giving energy to the capillary system, promoting a warmth, and thus maintaining an equable balance of the circulation throughout the body. It not only accelerates the circulation when feeble, but moderates it when excessive, in consequence of its stimulating effect on the nervous system. While it supplies for the time being the necessary power of resistance to the nervous centres, the effect of the disturbing cause is neutralized, and the circulation regains its equilibrium. Another remarkable property of opium is its effect over the nutritive or reparative function, as manifested by its influence on old ulcers, obstinate chancres, senile gangrene, etc. By applying opium to the surface, internal parts are relieved of undue accumulations. The property this drug possesses of retarding the too rapid metamorphosis of the tissues, enables us to maintain the integrity of the organism in exhausting fevers, wasting discharges, long continued exposure to cold, or any protracted mental or physical suffering.

It is obvious that each of these remedies has a wide range of application. Many exigencies require the simultaneous use of the two remedies, notwithstanding they may, to some degree, modify each the other's effects.

Many acute inflammatory conditions promptly yield to full doses of opium; the danger of the remedy paralysing the nervous energies so far as to induce fatal congestions, is averted by the contractile effect of quinine on the capillaries.

Combination with quinia contracts, also, in a great extent, the tendency of opium to so far reduce the biliary and renal secretion as to incur the risk of fatal toxæmia, and not less its tendency to reduce the respiratory action down to endangering the normal aëration of the blood.

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The unpleasant after effects of opium appear not when it is given in conjunction with quinia. Persons, particularly children, narcotized by opium, are often promptly aroused by the administration of quinia. In extreme exhaustion following protracted hæmorrhages and other debilitating causes, the free use of opium temporarily arouses the energies of the system, but frequently leads to unpleasant narcotism. The latter is prevented by the addition of quinine, which, furthermore, not only secures the desired action with a less amount of opium, but maintains the same for any length of time without the otherwise unavoidable repetition of the narcotic agent.

The idiosyncracy of many persons against opium is in many instances overcome by combining that drug with quinia, which thus proves a valuable adjuvant to opium.

On the other hand, some frequently undesirable peculiarities of quinine can be corrected by giving opium simultaneously. In many diseases with dangerous congestion of internal organs, the existing action of quinine in the general circulation may be modified by opium. Either of the two remedies alone would almost certainly add to the existing congestion; combined, they mutually neutralize their bad effects and coöperate in producing the desired relief. A judicious combination will often give us the most perfect control of the vital forces, and enable us to fulfil the various indications in the most satisfactory manner, in many forms of inflammation. In the treatment of idiopathic fevers, quinia is almost indispensable, but various disturbing symptoms may demand the use of opium too; both agents combined secure the most beneficial results. Various neuralgic affections, which are palliated by opiates and sometimes cured with quinia, often yield speedily to their united influence. In numerous morbid conditions belonging to the neuroses, and often associated with anæmic states of the system, the true etiology of the disease can be traced to defective nerve nutrition, and it is a fact that many of these neuropathic conditions yield to the combined action of opium and sulphate of quinia.—*Amer. Jour. of Med. Sciences; Drug. Circular.*

Carbonate of Ammonia in Scarlatina.—In an essay "On the Different Modes of Treating Diseases," Dr. Spooner corroborates the efficacy of the subcarbonate of ammonia in scarlatina, as maintained by Geart, Wilkinson, and others, but with some modifications. The remedy must be given as early in the disease as possible, in as large doses as the patient can bear (a teaspoonful of a solution of one dram of the ammonia in from two to five ounces of mucilage and syrup), repeated every two, three, or four hours, according to urgency of symptoms, and continued until there is improvement of the symptoms, which can usually be seen on the second or third day. With all due precaution, however, cases of failure cannot be prevented.—*Boston Med. and Surg. Jour.; Cincinnati Lancet and Observer.*

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[From Hospital Reports, in *Cincinnati Lancet and Observer.*]

On the Use of Persulphate of Iron in Diarrhœa, with Reports of Cases.

Commercial Hospital.—JOHN DAVIS, M. D., Attending Physician.—Reported by Dr. GEORGE S. COURTRIGHT, Resident Physician.

CASE I.—Robert McK., æt. 16, admitted March 27th, 1862. Is very much emaciated; has always enjoyed good health, until one week ago; while on the Tennesee River was attacked with severe pain in the abdomen, followed by frequent watery stools, which has continued up to time of admission. Now has furred tongue; appetite very much impaired, with great thirst; bowels moving off very frequently; stools of a gray color; has some nausea; was placed under the following:—℞ Ferri persulphas, grs. x.; piperine, grs. x.; ext. taraxicum, ʒj. M. Fiat pillulæ, No. x. Sig. one every four hours. The diarrhœa was relieved almost immediately, and the treatment was omitted at the end of the second day, when it again returned, but was relieved on the resumption of the medicine. He was then placed under tonics, made a rapid recovery, and was discharged, cured, April 8th, 1862.

CASE II.—Benjamin M., æt. 22, admitted May 3, 1862. Has been in camp, and was taken sick five days ago. Now has all the symptoms of typhoid fever, such as sordes on the teeth; furred and cracked tongue; abdomen tub-shaped; tenderness on pressure over right iliac region; bowels about narural. Five days after admission, was attacked with severe diarrhœa, having frequent watery stools. ℞ Ferri persulphas, grs. xv.; piperine, grs. x.; ext. gentian, ʒj. M. Fiat pillulæ, No. x. S. one every four hours. The diarrhœa was very promptly relieved, and the patient improved very rapidly, and was discharged May 24th, 1862.

CASE III.—Edwin M., æt. 26, admitted June 23d. Has been employed as cook in the army. For some length of time has been stationed in Pittsburg Landing; says he has been sick about three months, with fever. Three weeks ago was attacked with severe diarrhœa, which has persisted to the present time. Patient on admission is very much debilitated, and there is great emaciation of the whole system; tongue moist; complains of pain on pressure over the abdomen; has ten or twelve passages from his bowels in twenty-four hours. ℞ Ferri persulphas, grs. xv.; pulvus opii, grs. iij.; ext. gentian, ʒj. M. Fiat pil., No. vi. S. one every two hours.

June 25th.—Patient greatly improved; had but one operation in the last twelve hours; ordered one pill to be taken after each operation; patient to have full diet, as beef, eggs, potatoes, milk, etc.

June 27th.—Now has but one passage from bowels in the twenty-four hours; is very weak and has night-sweats. ℞ Quinine sulph., ʒj.; ext. gentian, ʒj.; aqua pura, ℥ij. M. S. teaspoonful three times a day.

July 2nd.—Is now convalescent, and gained strength very rapidly. Discharged, cured, July 12th, 1862.

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Case IV.—Charles S., shoemaker, æt. 31, admitted May 20th. Was attacked seven months ago, after exposure, with cough, which was very severe at times. On admission, is much emaciated and very weak. On examination of the chest we found extensive disease of the lungs, tuberculous in character, as shown by the physical and rational signs. Was soon after admission attacked with diarrhœa of a very severe character, which was not relieved by the ordinary astringent remedies. The ferri persulphas was given in three-grain doses with decided relief, but the patient sank very rapidly, and expired June 7th. Post-mortem revealed extensive disease of both lungs.

Case V.—Frank C., æt. 20, United States soldier. Is the subject of empyema, which was brought on by an attack of pleurisy, followed by effusion into the cavity of the chest. Paracentesis thorasis was performed in the usual situation, and there was discharged daily a large quantity of pus through the opening; was attacked with diarrhœa, which prostrated him very rapidly. Gave one and one-half grain doses of the ferri persulph., combined with the bitter tonics, which relieved it very effectually. The hypophosphites of lime and soda were tried, with some improvement in the general condition of the patient. He gained three pounds in weight under their use in the short space of twenty-five days. He left the hospital for home, his condition very much improved.

Case VI.—Edward B., boatman, æt. 26, admitted May 15th, 1862. Says that six months ago he was taken with severe diarrhœa, which has troubled him ever since; he would be apparently well for a few days, when, without any premonitory symptoms, he would be attacked with diarrhœa of a severe character. Two weeks ago he became much worse than usual, and for the last few days has been passing some blood with the fæces, accompanied with severe pain. On admission, has from twelve to fifteen stools in twenty-four hours, with tenderness of the abdomen; stools small and mixed with blood; pain on pressure over lower part of abdomen; tongue coated. ℞ Ferri persulphas, grs. one and one-half, with the bitter tonics every two hours, with some improvement. The dose was increased to grains iij., which was continued for some days with decided relief. He was then placed under the following:—℞ Morphia sulph., grs. ij.; oleum amygdalæ dulc., ʒj.; sach. alba, ʒij.; mucil. acaciæ, ʒiv. M. Sig. one-half tablespoonful every three hours.

The patient now improved very rapidly, and was discharged, cured, June 27th, 1862.

Lotion for Infantile Erysipelas.—M. Loiseau has used in many cases of erysipelas around the vaccine pustule in infants a lotion composed of tannin dissolved in brandy, with the addition of a small quantity of chloroform. The application is repeated at first at intervals of ten minutes, gradually increasing the space to half an hour or more. It promptly relieves the pain and checks the spread of the disease. M. Loiseau thinks it probably applicable to erysipelas arising from other causes.—*Chicago Med. Jour.*

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Chronic Rheumatism.

By Jos. KLAPP, M. D., of Philadelphia, Acting Assistant Surgeon U. S. A.

Of the many cases of disease brought into our Military Hospital at the corner of Sixth and Master streets, Philadelphia, a large majority complained of rheumatism. Among them not a single case of articular rheumatism, acute or chronic, was found. Rheumatic inflammation of the membranes of the spine with severe neuralgic pains in various parts of the body, with no perceptible swelling of the part, was the form it assumed. Why we should have this form, so unusual in private life, is a question of interest, not only to the medical man, but also to the soldier whose comfort and whose health is so much impaired by it. If it is owing simply to exposure, and ordinary fatigue, we should have, as in private life, to an extent at least, articular rheumatism. That it is not due, solely, to an enfeebled condition of the system, is evident from the fact that our typhoid cases do not complain of it, until they have recovered, to a considerable degree, their strength.

The fatigue endured by the soldier is heavy and peculiar. The drain upon his spinal nerves from the weight of the apparatus carried, the mode it is carried, his long marches and forced marches, and his active drill is persistent and severe. Upon a system thus worn out with a diet not always suitable for the recovery of its tone, supervenes cold from exposure night and day to the changes and inclemencies of the weather. Herein we have reasons sufficient to explain why it should be the form most common to the soldier in active life. Such, at least, has been my experience; that of the camp-surgeon may be different; and it is with a view of eliciting, as far as possible, all the facts connected with this disease, and thereby improve our mode of treatment, that I am induced to throw out these suggestions.

Tenderness, excessive or slight, with the intermediate grades, was found either along the whole spine, or in certain portions. Those complaining of pains in every part of the body have it along its length, and those of pains in certain portions only have but partial tenderness; and this is generally posterior to the seat of complaint. Thus one will complain of pains in the chest, the abdomen or the legs, and the tenderness will be felt either in the dorsal or the lumbar vertebræ, from whence the nerves supplying the part may arise. By keeping this fact in mind, we may discover the seat of many of those anomalous affections of the chest and abdomen otherwise puzzling and annoying. A very few complained of pains about the head, a few of pains about the chest, but more of pains about the abdomen, and these last were attended with excessive sensibility of the surface complained of. Sometimes it would simulate diseases of the lungs or heart, but physical exploration soon detected its spinal origin. Rarely did I find any disease of the heart, and then to a limited extent. Functional disturbance of the liver with jaundice I found in a few instances, but dispepsia and diarrhœa from irritable stomach and bowels was present in

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many cases. One of the most troublesome symptoms was deranged function of the kidney, simulating so closely organic disease that it was only by carefully analysing the cases that I was able fully to satisfy myself of its origin. Neuralgia of the legs with partial paralysis, and often wasting of the muscles, was found in nearly every case.

Now for the treatment: The most important, as well as the most difficult part of our duty. After trying, without effect, colchicum and the ordinary treatment, I resolved to make use of those means best calculated to relieve its spinal and neuralgic nature. Cups, mostly dry, as our cases were generally confined to the spine, followed by painting with the tincture of iodine alone, or with veratrum dissolved in it, in the proportion of 15 grs. to the f℥j; veratrum ointment 15 grs. to ℥j of cerate, with iodide of potash, tincture cimicifuga, tincture strmmonium and paragoric given internally, separately or combined, so far, has done more than any other treatment to mitigate its sufferings, and shorten its duration. Other treatment such as quinia, carbonate of iron and extract of belladonna, ferrocyanuret of iron and quinia and phosphate of ammonia, were used with comparatively no effect. Dover's powder at bed time often relieved their sufferings for a night, and enabled them to bear more patiently the pains of the day. Frictions with turpentine liniment and laudanum over the troubled part gave temporary relief. To relieve the nervous affections of the chest antispasmodics were used, and for the derangement of the liver 5 drops of nitro-muriatic acid three times a day, always afforded relief. To allay the irritability of the stomach and bowels, bismuth, magnesia and morphia combined, and tincture catechu and paragoric was always directed with advantage. When the function of the kidneys was disturbed, a combination of fluid extract of buchu, tincture hyoscyamus, and sweet spirits of nitre was given, but this was seldom required.

Such is the outline of the treatment found most serviceable in this annoying and yet interesting disease. I have given it with the hope, by calling the attention of physicians to it particularly, of bringing out such facts as may enable us to relieve more quickly and more surely the sufferings of the soldier. —*Med. and Surg. Reporter.*

Oxalate of Cerium and Pepsin in the Vomiting of Pregnancy.—Mr. Geo. Selwyn Morris, of Guisbro', in the *London Lancet*, says:—"I have used the oxalate of cerium in six cases lately, where sickness and retching were most urgent in pregnancy. I cannot say that I am at all satisfied with the results. It is true three of the cases were relieved by it; but in order effectually to stay the urgent vomiting, I was obliged to have recourse to my favorite drug (pepsin) in ten-grain doses. I gave the oxalate of cerium in tragacanth powder, two or three grains at a dose, three times a day."—*Med. and Surg. Reporter.*

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Selections.

DELIRIUM TREMENS TREATED WITH HALF-OUNCE DOSES OF THE TINCTURE OF DIGITALIS.—"A drayman, aged twenty-eight, of very powerful frame, was admitted into the Radcliff Infirmary, Oxford, for a contused wound in the occiput, caused by falling backward while intoxicated. The hemorrhage, which had been very free, was checked by the application of a little pressure; and being put to bed he soon fell asleep. Next day he appeared to be suffering from the effects of his debauch, and as he craved very much for a drop of beer, a pint of ale was allowed, which made him feel more comfortable; but in the evening he was seized with a violent fit of epileptiform convulsions, which lasted for about ten minutes. Another half-pint of ale was given to him, with the same result as before; and during the night he had two slighter fits of the same character. On the second day he complained of pain in the head, and, his bowels being confined, a good dose of calomel and jalap was administered, to be followed by sulphate of magnesia every four hours, and cold applied to the head. His bowels were freely opened, and he was quiet throughout the day and the following night. On the third day he became restless and fidgety, and was with difficulty kept in bed, being frightened by some imaginary object which he said constantly pursued him. In the night he got out of bed, and had to be carried back by force, in spite of his most violent efforts to the contrary. A straight-waistcoat was applied, and half an ounce of tincture of digitalis given in water. He soon became quiet, muttering a sentence in a low voice now and then, and continued so through the night, but did not get any sleep. Next day he was restless, and toward night became again very violent. A second dose of the digitalis was administered, and in a few minutes he fell asleep, and slept through the night and the greater part of the next day. After this he became very quiet and comfortable, and has progressed up to the present time very satisfactorily, the wound having nearly healed."—*Med. Times* and *Dublin Medical Press; Med. and Surg. Reporter.*

VERATRIA IN RHEUMATIC FEVER.—In a clinical lecture recently delivered by M. Bouchut, at the Hôpital Ste. Eugénie, the employment of veratria in the treatment of rheumatic fever in children is strongly advocated. M. Bouchut, whose opportunities for testing any novel method of medication are so extensive, comes forward with thirty cases of acute rheumatism, in which veratria has proved sufficient for the cure of the malady in from three to twelve days, the amelioration setting in on the second or third day of its administration. One of the most remarkable effects of the action of veratria in rheumatic fever is the rapid fall of the pulse; whatever its frequency, the diminution under the use of this drug is most marked, the pulse falling to sixty, or even fifty, becoming almost thready and imperceptible, without causing to the patient any feeling of malaise. This abatement of the circulation M. Bouchut considers as the signal for the diminution of the doses. With regard to the effect of veratria on heart complications, this is probably indirect, and due to the anni-

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hilation of the rheumatic poison. Besides its influence on the pulse, this medicine may, if given in too large quantities, irritate the mucous membranes, and produce vomiting, diarrhœa, and colic. The doses should therefore be small, and the ordinary formula recommended is, veratria and extract of opium, one grain each, to be divided into ten pills, of which two pills are to be given the first day, three the second, four the third, five the fourth, and so on, increasing one pill each day until the condition of the pulse, or the irritation of the mucous membrane compels a diminution. The difference of price in hospital practice between the use of veratria and that of sulpate of quinia is, of course, one point of comparison in which the advantage remains very decidedly with the former; add to which, in a therapeutical aspect, veratria is perfectly innocent of those charges of exciting rheumatic determination to the membranes of the brain, which in some measure appear to have been justly adduced against quinia since the employment of large doses of this drug has come into fashion.—*Lancet* and *Dublin Medical Press; Med. and Surg. Reporter.*

Treatment of Whooping-Cough.—Having had a fair occasion to test the value of extract of belladonna and sulphate of zinc, conjointly used, as suggested by Dr. Fuller (*London Lancet*, Oct. 1860), Dr. C. S. Sheldon, Springfield, Ill., was led to the conviction that they possess peculiar power in reaching the seat of the disease, cutting it short usually in ten days. With children under three years, he began with one-sixth of a grain of the extract, and half a grain of zinc, four times daily, dissolved in water and gum mucilage; to those above that age, a quarter of a grain of the extract, and a grain of zinc was given, increasing the doses in some cases to double the quantity, but never beyond. The following effect would be manifest within an hour after taking the medicine, and continue from one to three hours: Deep red, or scarlet color of the whole surface, particularly of the face and neck; dilatation of the pupil, arterial excitement, dry, warm skin, general excitability of the whole system. All these symptoms gradually pass off, leaving no unfavorable effects.—*American Medical Times.*

Administration of Ergot of Rye in Draughts.—Dr. H. Montgomery, of Madras, states that he has found the following formula highly useful, viz:—Powdered ergot ʒj., boiling water ℥ ij. for two draughts. The ergot should be powdered without drying, and is not to be strained out of the draught. In order to have these draughts always ready, a teaspoonful of spirit or brandy and ʒ ss. of ethereal tincture of ergot are to be added. These draughts, if preserved in bottles having *ground glass stoppers*, will keep a very long time, and are so portable as to be easily taken about. Dr. Montgomery can answer for their efficacy several months afterwards, when prepared from good fresh ergot.—*Madras Quarterly; Amer. Drug. Circular and Chemical Gazette.*

A New Artificial Leg and Foot.—By Dr. Herrmann, of Prague.—This contrivance, invented by the Austrian chief-physician, Dr. Russheim, is made of excavated poplar wood, lined with linen. A horsehair cushion, covered with linen, flanel, and leather, supports the tuberosity of the ischium. An

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elastic band connects the femoral capsule with a leather girth which is buckled around the pelvis and kept in position by a shoulder strap. The joints are movable. All the troubles usually inseparable from the wearing of the artificial legs are completely avoided in this one. The patients can walk without any support almost as soon as the artificial extremity is put on, and neither fatigue, contusions, nor other unfavorable consequences follow.—*Wiener Medizinische Wochenschrift*; *Amer. Drug. Circular and Chemical Gazette.*

Treatment of Tape-worm.—Dr. Fleming, of Birmingham, in clinical remarks published in the *Medical Times and Gazette*, says he "has made comparative trials of several vermicides on the tape-worm; among others of male fern, kamala, koosso, and spigelia. All are useful, but Dr. Fleming finds the first to be most efficient and the safest. He gives it thus: ℞. Ol. filicis, ʒj; mist. acaciæ, ℥ss. M. ft. haust. To be mixed with an ounce and a half of sweet milk and taken at bedtime. The paitent must omit the dinner and evening meal of that day. Taken thus, on an empty stomach, the mixture is carried speedily into the intestines, to feed, and, at the same time, poison the hungry parasite which nestles there. Milk is the favorite food of the worm. A large experience leaves no doubt of the great efficiency of this medication. In 1857 Dr. Fleming obtained a supply of the kamala from Dr. Anderson, of the H. E. I. C. S., and was one of the first to use that drug in this country. As a worm-killer, it is often very efficacious, but less so than the male fern; while its action on the bowels and secondary depression of the system are often unduly severe."—*Med. and Surg. Reporter.*

Affections of the Nervous System.—*Chorea.—Aniline.*—Aniline is one of the class of artificial alkaloids. It is contained in coal-tar, and may likewise be obtained from indigo by distillation. A sulphate of this alkaloid given in doses of one grain three times a day, and gradually increased, is of marked benefit in cases of chorea. The violence of the movements decidedly diminish, and a gradual improvement ensues. When the dose is increased, some depression is produced, and frequently a peculiar blueness of the lips. (Dr. J. Turnbull.)

Delirium Tremens.—The following will generally procure refreshing sleep and relief of nervous excitement. Make an infusion of two scruples of Cayenne pepper in a pint of boiling water, strain it when cool, and make it into punch, adding sugar and lemon to suit the taste. It is very palatable, and will be taken by the patient ad libitum. (Mr. C. Ferneley.)

Epilepsy.—Bromide of Potassium.—Bromide, like iodide of potassium, is sometimes of signal use in cases of epilepsy. Probably these cases depend on a local affection of the bones or membranes, which the remedy removes by its absorbent powers. Five grains may be given three times a day. (Dr. S. Wilks.)

Neuralgia.—Valerianate of Ammonia.—The valerianate of ammonia is a remedy of great use in some of the severer forms of neuralgia. If retained in a state of crystallization, it rapidly decomposes, and is uncertain in its ac-

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tion. It should be kept in solution. The solution must be of the strength that twenty grains of the salt may be given as the smallest dose. It may be given in this dose every two hours, in infusion of valerian as a vehicle. (Dr. O'Connor.)—*Braithwaite's Retrospect.*

Use the Mind.—President Felton, on a recent occasion, combated the notion that hard study is unhealthy.

"It is frequently supposed," he said, "that hard study is very unhealthy, and it is even supposed, by some, that young people kill themselves by hard study. I wish to say emphatically that all these stories are monstrous fabrications; that no child, girl, boy, man, or woman, ever died of hard study or even injured themselves by hard study; and that all complaints made against schools, of injuring the health of students by hard study, are utterly calumnious and false; and that among the healthful exercises, the exercises that most promote vigor, strength—physical vigor, physical strength, is the exercise of the human brain, which is itself a physical organ, only it must not be exercised alone. But the pale and puny student, who flatters his self-conceit that he is suffering dyspepsia, and all the ills that come with it, because he is so *intellectual*, may not 'lay that flattering unction to his soul' any longer; it is because he is a *fool;* it is because he is a fanatic; it is because he has not exercised his brain, and has neglected the other parts of his system also. With a sound system of physical exercise, and healthy modes of living, that same pale and self-fancying intellectual being would accomplish twice, four times the intellectual work that has brought him to death's door —and he prides himself on being in that very pleasant position.

"It has been proved by statistics, that among the longest lives, as a general rule, are the most intellectual. Prof. Pierce, of our University, examined the subject, and he found, somewhat to the surprise of a portion of the community, (I won't say what portion,) that taking classes in the average, those that are the first to die, are those who are the dullest and stupidest, and most irregular during their college life; while as a general rule (of course, there are exceptions, but exceptions prove the rule in this as in other things,) the good scholars—those who exercise their brains constantly, thoroughly, faithfully, and have performed all their duties conscientiously—are the longest-lived. I think these facts really worth being impressed upon the young."—*Amer. Drug. Circular and Chemical Gazette.*

Modern Science.—A very interesting story is told of the curious and exquisitely finished ivories sent home by Dr. Layard, from Nineveh. When they reached England, to every appearance they seemed about to crumble to dust. The keen eye of modern science instantly detected the cause of decay. "Boil them," it said "in a preparation of gelantine; it is that constituent part of the ivory which has perished." It was done, and the ivories are as hard and as firm as when first carved; they may last another thousand years or two. The merit of this suggestion is contested by the Dean of Westminister and Prof. Owen; it may very probably have occurred to both resourceful minds. —*Ibid.*

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TANNATE OF IRON AND COLLODION TO PREVENT PITTING BY SMALL POX.—Dr. Thompson, at a late meeting of the N. Y. Co. Med. Soc., remarked that at the Quarantine Hospital they used a mixture of Collodion, Tannin and Iron with good effect in preventing pitting; the object of the mixture being accomplished by excluding the light with the black mark thus formed.

It is probable that the various measures proposed accomplish the object, if ever, by diverse methods, some as cauterants by aborting the pustule, others by relieving inflammation directly, and others indirectly by excluding the air and light.—*Chicago Med. Journal.*

ON THE USE OF LOG-WOOD IN CANCER.—M. Desmartis lately brought under the notice of the Academy the results obtained by him with the extract of log-wood applied to cancerous ulcers. He found that by the use of an ointment composed of equal parts of fat and extract of log-wood, not only the odor disappeared, which was in some instances of the most offensive description, but that the suppuration was also considerably diminished. As soon as this ointment was again discontinued, the odor reappeared, and the secretion assumed an unfavorable character. In cases of hospital gangrene, the same ointment acts like a charm, and it likewise proves valuable in erysipelas consequent upon amputations and wounds, even if the form of the disease is most severe. Log-wood may be mixed with stypties, such as ergot or rye, perchloride of iron, persulphate of iron, and employed as powder or as lotion. The extract is only soluble in hot water, and its price is merely nominal.—*Med. Times; Med. and Surg. Reporter.*

NITRIC ACID IN PERTUSSIS.—Dr. Barker, in the N. Y. Academy of Medicine, stated that he did not think Nitric Acid was applicable in the first stage of whooping cough, prefering at that period small doses of Tinct. Rad. Aconiti with rubefacients over the upper part of the chest posteriorly and anteriorly. After subsidence of inflammatory symptoms, free imbibition of nitric acid lemonade—fifty or sixty drops of the dilute acid to a tumblerful of water. He recommended also ℞—Syrup Lactucar, ʒj; Ext. Belladonna, gr. ⅛; Quiniæ Sulphat, gr. ss. M.—To be taken three or four times a day.—*Chicago Med. Journal.*

AFFECTIONS OF THE THROAT IN SCOTLAND.—Sore-throat, ulcerated sore-throat, and diphtheria, have occurred in various localities in Scotland, and in Mid and South Yell. The sore-throat appears to have been accompanied with an affection of the hands, which raises the suspicion that sore-throat and diptheria in the human subject is but a variety of the epidemic disease in cattle known by the name of murrain or epizootic aptha, characterized by the apthous and ulcerated mouth and sore hoofs.—*Lancet; Cincinnati Lancet and Observer.*

NEW REMEDY FOR CHOLERA.—By Dr. Honigberger.—(Translated for the Monthly.)—It would be impossible to collect, within the pages of an ordinary octavo volume, the remedies which have been proposed for cholera, both by those who are connected with scientific medicine and by empirics. We find in

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Cosmos a notice of still another contribution to the list of cholera-specifics. Dr. Honigberger, of Calcutta, having acquired quite a reputation in the treatment of this disease, announces that "inoculation with the *infusion of quassia* cures almost infallibly even the most desperate cases, and that he has employed it in thousands of cases. His *modus operandi* is as follows: A puncture is made into the left arm, and, as soon as blood appears, from three to five doops of the infusion are allowed to fall on the puncture. The blood coagulates quickly, and a bandage, which must be kept moist, is applied. For cramp in the lower extremities an incision is made in the calf. Cold water or sherbet should be used as drinks, and sometimes a douche of cold water is employed on the body and head, since quassia produces great heat in the circulation." Dr. Honigberger has applied for the Breant prize. In reading the account of this treatment for cholera, one finds it difficult to conclude whether its originator is trying to deceive others, or is himself an egregiously humbugged man.—*Am. Med. Monthly.* L. H. S.

A Large Dose of Chloroform.—A remarkable case is related by a correspondent of the *London Medical Times*, in which a person aged 50 swallowed at one dose two ounces of chloroform. The patient fell into a profound coma; the pupils were widely dilated and insensible; the pulse slow and feeble; surface of the body colder than natural; movements of the thorax scarcely perceptible, and sensation generally abolished. Several hours elapsed before any remedies were employed. A stomach pump was used, and a quantity of chloroform, mucus, and watery fluid was removed, and the somach thoroughly cleansed with tepid water. In less than an hour afterwards there was a return to consciousness and an ability to give rational answers to questions. For three or four days there were signs of irritation of the throat and stomach, which was treated secundem artem, and at the end of a week the patient was quite well again.—*Amer. Drug. Circular and Chemical Gazette.*

Pharmacy.

EMPLASTRUM OPII, U. S. P.

By Wm. Procter, Jr.

Having occasion to prepare ten pounds of this plaster it was determined to adopt somewhat the plan proposed for the Pharmacopœia of 1860, yet not entirely the same. The quantity of plaster to be made was ten pounds avoirdupois. The ingredients employed were as follows:

Take of Opium in mass, a quantity equivalent to 20 ozs. of the powder.
Burgundy pitch..... 30 ounces.
Lead plaster.....120 "
Water and alcohol, of each,.....q. s.

Having dried one hundred grains of the crude opium and ascertained its loss of weight, weigh out the quantity of opium equivalent to 20 ounces dry, cut

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it in pieces, and macerate it in two pints of water for 24 hours. Then express the liquid in a cloth strainer, and again macerate in two pints of water for 12 hours, and again express; mix the solutions and allow them to evaporate at a moderate heat. To the dregs of the opium add sufficient alcohol to make a semifluid mass, (about half its weight,) put it in a funnel with a sand diaphragm, and pour on diluted alcohol until the liqnid passes with little color or odor. Evaporate this tincture to a syrupy consistence, add it to the other liquid, and when the mixed extract has acquired the consistence of thick honey while hot, add to the plaster and Burgundy pitch previously melted together in a suitable vessel, and stir them until a portion, on cooling, has the proper consistence.

This plaster is apt to be a little too soft at first, owing, apparently, to the absence of the insoluble portion of the opium, but it soon attains the proper consistence if the lead plaster used has been free from undecomposed oil which appears to keep the plaster too soft. The use of such lead plaster and that which contains glycerin should be avoided in making this plaster.—*Amer. Jour. of Pharmacy; Amer. Drug. Circular and Chem. Gazette.*

FALSIFICATION OF BALSAM OF COPAIBA.

M. Reveil has examined a specimen of copaiba taken by l'Ecole from a druggist. This balsam is remarkable for its terebinthinate odor, is solidifiable by magnesia, and nearly completely soluble in absolute alcohol; but ammonia solidifies it immediately, whilst it troubles but momentarily the pure balsam of copaiba of the Central Pharmacy, and gives with Para balsam an emulsion of slight consistence. A mixture of Para copaiba and turpentine is also solidified by ammonia.—*Jour. de Chim. Med.; American Journal of Pharmacy.*

OPIUM ALTERED BY AGE.

In his memoir on opium, M. Guibourt states, that in analysing an opium kept in his store nearly twenty years, he obtained less morphia than he had extracted from the same opium when recent. The product obtained was strongly colored, and the alcoholic solution equally so. The extractive matter, (says the professor,) and other principles without doubt, the morphia, perhaps, is converted into a brown body (apotheme?) little soluble in water, but soluble in alcohol like morphia, and precipitating with it by the cooling of the liquid, and can only be separated by combining the alkaloid with an acid, and decolorizing the salt by charcoal, &c.—*Rep. de Pharm.; Ibid.*

ON THE LEAVES AND FLOWERS USED IN PHARMACY.

By M. E. Filhol.

In the course of my researches on vegetable matters, I have often had occasion to observe a fact well known among pharmaceutists, namely, the decoloration of leaves and flowers, under the influence of light, air, and humidity.

It seemed to me necessary to ascertain whether the coloring matter only disappeared or whether some of the medicinal principles did not go with it.

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Several analyses of this kind have already been attempted, but as yet we have no complete work on this subject. The following considerations show that it is very desirable this question should be seriously studied.

The numerous experimeuts I have for several years been making prove that, besides chlorophyl, leaves contain quercitrin or quercetine, and sometimes both these matters. Sometimes, also, we find small quantities of the yellow coloring matter of flowers known as xanthine.

Red, rose, and blue flowers are colored by cyanine. Yellow flowers owe color to xanthine, xantheine, or to croco-xanthine.

In fact, almost all flowers, like leaves, contain either quercitrin or quercetine; moreover, they all contain notable quantities of sugar. In estimating the quantity of quercitrin, if we compare leaves carefully dried and preserved from contact with the air, light, and moisture, with leaves of the same kind badly preserved, such as are often sold by druggists, these we shall find contain much less quercitrin than the well preserved leaves. Instead of a crystallisable and well defined compound, we obtain from the badly dried leaves nothing but apparently extractive matters, resulting from the alternation of the proximate principles originally contained in the plant.

It is the same with wild flowers.

It can, moreover, be shown that flowers lose their sugar with their color. It is readily understood that the principal odorants also disappear.

By insolating the above-mentioned vegetable coloring matters it is easily proved that these matters when pure alter very slowly by contact with air, water, and light; but it is altogether the reverse when they are associated, as in leaves and flowers, with a vegetable tissue. Then they rapidly disappear. In such a case it might be said that the vegetable tissue acts like spongy platinum, and facilitates the combination of the elements of the air or water with the proximate principles contained in the plants.

To me this fact seems of the greatest importance, for though the proximate principles, which if pure may be preserved indefinitely, undergo alteration when associated with vegetable tissues, there is nothing to show that the substances which appear to possess great stability are not destroyed in a short time under the influence of light, air, and moisture when associated with vegetable cells.

It would be very serviceable to ascertain whether alkaloids, vegetable acids, &c., do not disappear as well as sugar and coloring matters when the plants which should contain them are altered. We know already that digitalis leaves when they have been badly dried contain less digitaline. It is probable that the leaves of belladonna, stramonium, night-shade, &c., after being decolorised under the above mentioned influences, contain a smaller proportion of alkaloid than leaves carefully gathered, dried, and preserved.

Most of the druggists in the South of France seem to forget that these plants being the principal ingrediants of powders, tisans, extracts, syrups, dyes, &c., the activity of all these preparations is lessened or destroyed if the plants themselves are not properly preserved.

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In publishing this short paper, my object has chiefly been to show that, when leaves or flowers lose their color, with it they lose principles which it is necessary to preserve.—*Compte-Rendu de la Societe d' Emulation des Pharmaciens de la Haute-Garonne; Am. Drug. Circ. and Chem. Gaz.*

BALSAMUM INNOCENZIANUM.

℞ Styrac. Liq.....6 parts.
" Calamites (in grs.).....4 "
Olibani.....
G. Myrrhæ.....
Aloes.....
Rad. Angelic. Ann. āā.....1 "
Bals. Tolut.....2 "
Tinct. Hyperici herb. flor.....48 "

(*Hager's Central Halle.*)—*Ibid.*

SYRUP OF HYPOPHOSITES OF LIME, SODA, AND IRON.

(*Thompson's.*)

℞ Hypophosphite of lime,.....256 grains Troy.
" " soda,.....192 " "
" " potassa,.....128 " "
Protosulphate of iron (cryst.),.....185 " "
Carbonate of soda,.....240 " "
Hypophosphorous acid,.....3½ fl. ounces
Sugar,.....12 ounces.

Dissolve the protosulphate of iron and carbonate of soda, each by itself, in four fluidounces of water, and mix the solutions. The precipitated carbonate of iron, after being washed thoroughly with sweetened water, is drained on muslin. The salts of soda, potassa, and lime, are then placed in a porcelain dish of sufficient size, together with two fluidounces of water and one of hypophosphorous acid, heated gently, and the carbonate of iron added gradually, together with small quantities of acid to obtain a complete solution. Then add water enough to make up ten fluidounces, and shake up with the sugar until dissolved.—*Am. Drug. Circular and Chem. Gazette.*

TANNATE OF IRON.

Dissolve one part of *tannin* in 150 of boiling *water;* add nine parts of *hydrated sesquioxyd of iron*, freshly precipitated, washed, and dried in the water bath; evaporate gently to one half; filter, then add one part of *sugar*, evaporate to dryness, and keep in a close vessel.

Another recepe is:—One part of sesquoioxyd of iron and two of tannic acid evaporated to dryness with three parts of alcohol.

Levant nut, synonym for the berries *Cocculus Indicus*. *Extractum Thebaicum*, properly speaking, is not the aqueous extract of opium, which is officinal, but opium softened in water, strained, and evaporated to its original existence.

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Liquor Opii Sedativus, which goes by the name of Battley's solution, is prepared by dissolving three drams of aqueous extract of opium in three ounces of boiling water, and when dissolved, adding six drams of dilute alcohol, and enough water to make the whole measure four fluidounces; finally filter.—*Am. Drug. Circular and Chem. Gazette.*

EXAMINATION OF THE URINE IN DISEASE.

From the French of Bouchardat.

A chemical examination of the urine will frequently clear up all difficulties in the diagnosis of a case, and Bouchardat has arranged the necessary agents for such an examination so as to make the latter easy to the common practitioner. The principal agents employed are heat, nitric acid, tannin, lime, and an ioduretted solution of the iodide of potassium.

1. *Heat.*—A little above 100°; the urine becoming turbid, will separate albumen in the form of clots or flakes. But it must not be forgotten that every specimen of urine which becomes turbid under the agency of heat is not necessarily albuminous; hence we must employ,

2. *Nitric Acid.*—Add some of this acid carefully to the urine. If albumen be present, flakes will be deposited. An excess of acid will disolve the flakes. Any urine that becomes turbid under the influence of heat, and renders a precipitate under the action of nitric acid, contains, beyond all doubt, albumen.

3. *Tannin.*—A solution is made by adding 200 grammes of water to 10 grammes of tannin, and 10 grammes of ether are then added to preserve the solution. The action of this reagent cannot be relied upon, since the solution of tannin will produce an abundant precipitate, if soup, rich in gelatine, has been taken shortly before the analysis.

4. *Lime.*—This detects admirably the sugar of diabetes. Fifty grammes of urine, and two grammes of lime, being boiled together in an assay-bottle, will give the color of caramel, more or less dark, according to the quantity of sugar present. The quick-lime is slacked with water, and then introduced into a flask which has a tight cork. If 50 grammes of urine are not colored when boiled with 2 grammes of lime, then two grammes more should be added. After the mixture is boiled again, if no color appears, it is well to test the lime. For this purpose a half tea-spoonful of starch-sugar is poured into the flask. On boiling, if the urine should then be freely colored, we have proof that the lime had been properly calcined, and that the urine contained no sugar independent of the starch-sugar which had been added.

5. *Ioduretted Solution of Iodide of Potassium.*—This is prepared by dissolving one part of iodine in one part of iodide of potassium in fifty parts of water. This solution will communicate a chestnut-brown color to urine containing sulphate of quinine or any other alkaloid likely to be administered in therapeutics.

These are the reagents which it is well to recollect in order to dissipate a doubt, and to confirm a diagnosis.—*Jour. de Chem. Med; American Medical Monthly.*

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LINIMENTS FOR CHILBLAINS.

Nitrate of silver dissolved in water, of the strength of from ten to sixty grains to a fluid ounce of water, has been sometimes found useful after other applications had appeared of no benefit. Tincture of cantharides, to stimulate almost to the production of vesication, has also been used in the more intractable forms of the disease. The tincture of capsicum has been presented as a specific in this disease. The *Baume Chiron ou de Lausanne* is composed of:—

Olive Oil,.....f℥ x.
Venice Turpentine,.....f℥ ij.
Yellow Wax,..... ℥ j.

Boiled together, strained, and while still warm, add, with constant stirring until the balm cools, a mixture of:—

Balsam of Peru,..... ʒ ijss.
Camphor,.....grs. jx.

Another formula has been given for this celebrated *balm*, which may sometimes be preferable. It is as follows:—

℞ Olive Oil,.....f℥ v.
Venice Turpentine,.....f℥ j.
Yellow Wax,..... ℥ ss.
Alkanet Root,..... ʒ ij.

Mix these, boil them together, strain,—then mix:—

Balsam of Peru,.....f ʒ j.
Camphor,.....grs. v.

add them to the warm mixture, and stir constantly until it becomes cold.

This "balm" should be spread on soft cloths and then applied to the part affected. Another mixture which has been highly lauded in this form of chilblain is composed of:—

℞ Rectified Oil of Turpentine,.....f℥ j.
Sulphuric Acid,.....gtt. xv.
Olive Oil,.....f℥ ij. M.

This is to be rubbed gently on the seat of the disease twice a day.

Dr. Berthold has urgently recommended a wash prepared by taking an ounce and a half of bruised nut-galls, boiling them for fifteen minutes in half a pint of water, and strain the liquid. This fluid is to be applied to the parts affected two or three times a day. A very similar but neater application is composed of tannic acid dissolved in glycerine. A mixture composed of:—

Collodion,.....f℥ iv.
Venice Turpentine,.....f℥ jss.
Castor Oil,.....f℥ j,

is quite as neat and even preferable in cases where there are fissures or small blisters.

Very popular applications for simple chilblains, of the variety here considered, are:

I. One ounce of sulphate of zinc dissolved in one pint of water. With this bathe the affected parts several times a day.

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II. One ounce of muriate of ammonia, dissolved in half a pint of cider vinegar. Applied as above.

III. Take of the compound soap liniment two ounces, and one ounce of the tincture of Spanish flies, mix them, and use as already directed.

IV. Take of vinegar and of alcohol a half pint each, muriate of ammonia, one ounce, mix and dissolve. To be used like the former ones.

But, as already said, for chilblains, while in the erythematous condition, nothing appears of such uniform utility as the ordinary petroleum, or as it is also called, the Kerosene oil. The notorious *Mexican Mustang Liniment*, composed of:—

Petroleum,.....f℥ ij.
Aqua Ammonia,.....f℥ j.
Brandy,.....f℥ j,

has been found valuable in those cases of extreme vital depression, where the oil alone did not appear to be sufficiently stimulating. Vesicated chilblains require to be treated with quite as powerful stimulation as the more mild form of the disease, and yet with caution not to destroy any of the remaining vitality.

Sometimes, when the inflammation and swelling are quite as important as is the fact that there are vesications, an application similar to those used in scalds and burns is of great efficacy. The *Baume Chiron ou de Lausanne*, the formula of which is already given, is of use in these cases. So is M. Devergier's ointment, composed of:—

℞ Lard,.....℥ j.
Acet. Lead,.....grs. v.
Ext. of Opium,.....grs. iij.
Creosote,.....grs. x. M.

Lisfranc recommended a lotion of the chloride of lime, with which to wet lint, and thus applied to this variety of chilblain. The common *Linimentum Calcis*, or what is far better, a liniment composed of equal parts of lime water and petroleum, will be found to give prompt relief in most of these cases.—*Journal of Rational Medicine.*

POMMADE NERVINE.

℞ Beef-marrow,.....1 ounce.
Butter of mace,.....1 "

Fuse them together. Have dissolved

Camphor,.....16 grains.
Oil of rosemary,.....½ dram.
" " cloves,.....1 scruple.
Balsam of Tolu,.....½ dram in
Alcohol (85 p. c.),.....1 dram.

Add this to the fused fat, remove from the fire, and stir until cold.—*Am. Drug. Circular and Chem. Gazette.*

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Editorial.

Camphor.—Camphor has been extensively employed as an anthelmintic. Brera says that he has always used it with the greatest success, and that he cannot too strongly recommend its use to physicians in worm complaints. Moscati gives it the preference over all other vermifuges. It is thought, by some, to be equally as efficacious administered by the rectum, as when taken into the stomach, that its effluvium readily pervades the whole intestinal canal. The former is preferable for ascarides. This drug has been recommended by Richter, as a capital remedy in cases of satyriasis, furor uterinus, and hysteria libidinosa. It is not to be administered if inflammatory symptoms exist.

Müller cured an irrepressible venereal desire and excessive priapism in a clergyman, by prescribing camphor in ascending doses, until a dram was taken daily.

Dr. Stille remarks: when persons who cannot be weaned from the habit of self-pollution, and are threatened with spasmodic attacks, or with the consumptive wasting peculiar to such cases, camphor should be administered, and that not in too small doses. He remarks, that its use too long persisted in, will endanger emasculation.

Allbert relates the case of a woman, 28 years of age, who thoroughly subdued a violent paroxysm of sexual passion by taking a dram of camphor. On two previous occasions she had used the medicine with equal success.

This substance is used to prevent the attacks of moths upon woolen fabrics, by sprinkling it amongst them.

Plants sprinkled with camphor are speedily and certainly killed, and the color of their flowers is changed by it.

Serapion, (an Arabian) is the ancient authority from whom the fullest account of this drug is derived. He says, it is applicable to inflammation, vertigo, and cholera, is anaphrodisiac, induces premature whiteness of the hair, and arrests hemorrhages.

Other Arabian authorities remark, that in large doses it produces indigestion, is an astringent of the bowels, and produces impotence.

Belladonna as an Antidote in Opium Poisoning.—Dr. Ira D. Hopkins, of Utcia, N. Y., gives, in the *Buffalo Med. and Surg. Jour.*, the following report of a case of poisoning by opium, with belladonna used as an antidote:—

"Ida Clifford, aged twenty, was admitted into the City Hospital on the 23d of July last, at 5 o'clock P. M. I was informed that she had purchased xl grs. of opium about 9 o'clock A. M. When I arrived at 6 o'clock P. M. I found her quite insensible, breathing heavily, pupils contracted to a point, skin cold and moist; pulse was feeble and scarcely perceptible. Being confident that the time for emetics and the stomach pump had passed, it became necessary to resort to some antidote that would reach the absorbed poison in the circulation; and testimony favoring belladonna, I administered ʒ i of that tinct., and ordered ʒ ss. every two hours. In the morning I found her quite smart."

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Logwood as a Deodorizing Agent.—Dr. H. Westlake, of Hillsdale, N. Y., in a letter in the *Amer. Med. Times*, calls the attention of the profession to Logwood (*Hematoxylon Campechinum*) as a valuable deodorizing agent. He says:—"A knowledge of its value seems to be more particularly desirable at this time when so many of our soldiers are suffering from sloughing and gunshot wounds. A simple aqueous solution of extract of logwood applied to such wounds will effectually do away with all offensive odor arising therefrom." He also recommends it as valuable in cancerous ulcerations, and in cancerous disease of the uterus in females, used in the form of injections.

Romance a la Medicale.—The *Cincinnati Lancet and Observer* publishes the following bit of romance among its "special selections," but from what source it was *specially selected* we are not informed. We deem it, however, worthy of reproduction:—

"A touch of romance may be permitted to enliven the sober pages of medical record. The brilliant hues of poesy gather round the story of a princess's gratitude to her physician which had been awaking the *gobemouches* of Paris and London to sympathetic enthusiasm. A young lady of rank,—a Russian princess,—who had suddenly become blind from the effect of exposure to the sunlight upon the snow, had been sent to Dusseldorf to consult the Hofrath, whose reputation as an oculist was widely spread. She was promised recovery in a milder climate, and was sent to Palermo, where she improved for some time, but undergoing a relapse, a young physician was dispatched by the great oculist to take charge of the case for him, and report progress. His attention was unremitting, and the result so far successful that finally the lady was ordered to return to Dusseldorf under his care, the eyes being bandaged permanently until her arival there. At the consultation her eyes were unbandaged, and delighted with the improvement in her sight, this demonstrative princess 'glanced wildly round the assembly, and in one moment, despite her still weakened sight, seemed to scan every countenance turned with such interest towards her own, and then, without a moment's hesitation,—as if impelled by a magnetic power stronger than herself,—she walked across the room towards where the young doctor—her friend and companion—stood, silent and trembling, concealed by the rest, and forgetting all beside gratitude, she gazed upon him, and burst into a passion of tears.'

"We think we have read something a good deal like this before; but, perhaps, it is the style only which is fictitious, while the facts may be real. There is an amount of circumstantial detail by which the story is authenticated, as the marriage just celebrated between the parties and the production of the old play of *Valérie* at the Théatre Francais *à propos* of the event; and, at least, the story is *ben trovato*. It is pleasant to hear occasionally of grateful princesses, and the recital is of course likely to stimulate young physicians to the most devoted attention—not attentions—to all their patients. Outbursts of gratitude are really much needed now-a-days in the relations of the public to their medical attendants. We fear they are almost as rare as they are desirable."

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Narcotics.

BY JOSEPH BATES, M. D.

ATROPA BELLADONNA.—*Continued from page* 418.

Epilepsy.—M. DEBREYNE called the attention of the Medical faculty to the remarkable results of his treatment of this disease, by belladonna, in 1842. His experience amounted to two hundred cases, and he regards this agent as the most efficient remedy hitherto proposed, for this terrible malady. The severity and frequency of the attacks were singularly diminished, even where a cure was not effected.

Recent cases are those which it most frequently effects. A dram of pure extract of belladonna is mixed with some inert powder, and divided into one hundred and twenty pills, of which one is taken the first day, two the second, and so on until six are taken in the twenty-four hours. If the sight continues unaffected, the dose may be daily augmented by two pills, until ten or twelve are taken in the twenty-four hours. This quantity should continue to be given during two or three months, and after having been suspended for a week, it is to be resumed in smaller doses, and again increased gradually. M. TROUSSEAU is reported to have cured twenty out of a hundred and fifty epileptic patients, thus treated. MICHEA reports that with the valerianate of atropia he cured three. Dr. STILLE remarks: "It may be inferred from the preceding statements, that belladonna deserves to be tried in cases of epilepsy dependent upon disordered functions merely, but its relative value

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in the treatment of this disease is not yet ascertained. PAREITA does not fail to mention that belladonna has been found beneficial in epilepsy.

Dr. MAX MARESCH, physician to the Vienna Hospital for the Insane, gives a favorable opinion in regard to the efficacy of atropia in epilepsy. M. M. prescribed the atropia in eighteen cases; three were completely cured, and thirteen much improved, the attacks being less frequent and violent. The one-fifth of a grain was given every morning before breakfast for a period of sixty to ninety days—an intermission of thirty to forty-five days allowed to the patient, and then the medicine again prescribed. It is important that the patient use neither coffee or cocoa, as the active principles of these counteract the physiological effects of the atropia. In the above dose the usual symptoms of belladonna were produced—the dryness of the fauces, difficulty of speaking, dilatation of the pupils, and in three cases, a roseoloid exanthem.

From the German, by THEADORE A. DEMME, M. D. M. DEBREYNE'S valuable suggestions may be found in Braithwaite, part 21, p. 77, relative to the use of belladonna in epilepsy.

Vomiting in Pregnancy.—M. BRETOMEAN, in 1842, proposed belladonna in the form of an ointment, or paste, made by mixing the extract with extract of rhatany and water. This was rubbed upon the epigastrium two or three times daily, during five or ten minutes. He states that the internal use of the belladonna had no effect upon the vomiting, yet friction with the same medicine invariably arrested it. Some authors say that the extract of belladonna rubbed upon the abdomen will relieve the vomiting of pregnancy, and other irritations sympathetic with the gravid uterus.

Spasmodic Asthma.—In that form where the dyspnœa is paroxysmal, and little or no bronchial secretion, belladonna is extremely useful. LENHOSSEK considered it a specific in this affection. MAGISTEL employed the vapors of a watery infusion successfully, by inhalation. Its effects are said to be more prompt and decided, being mingled with tobacco and smoked.

Quinsy.—M. POPPER asserts that small doses of the tincture of belladonna, frequently administered, will cure quinsy, if it be not complicated with syphilis, often in the short space of twenty-four hours. He says he rests this assertion on an experience of more than five hundred cases.

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Diseases of the Eyes.—The dilatation of the pupil by this agent would naturally suggest its employment for facilitating several operations upon the eye, and for the cure of some of its diseases. STILLE remarks, that "an accidental notice of the phenomenon alluded to, in a lady who had washed her eyes with an infusion of belladonna, was, however, the starting point of the experiments performed by HIMLY, in 1801, and which led to his employment of this valuable adjuvant in ophthalmic surgery. There is, perhaps, no other single remedy capable of rendering such important services in this department of the healing art. In the first place, it is used for the purpose of obtaining a distincter view of the parts posterior to the iris, than is possible when the organ is examined under a diminished light alone. By its means, therefore, the quantity of a cataract may be determined, and whether or not adhesions exist between the uvea and the capsule of the lens; the movements of the couching needle can also be kept in view during operations for cataract. Under its influence, moreover, morbid adhesions of the iris may be broken up, and abnormal positions of its organ corrected. To prepare a cataractous eye, the extract of belladonna, moistened to the consistence of cream, should be smeared upon the brow and eyelids over night, and washed off with a little tepid water a few minutes previous to the examination or operation. When either depression or diversion of the cataract is proposed, this preparation ought never to be omitted. There is some doubt of its propriety when the lens is to be extracted, because in that case the vitreous humor may escape. On the other hand, dilatation of the pupil renders the extraction of the cataract less difficult, and diminishes the danger of wounding the iris, and consequently the effects of iritic inflammation. Besides as HIMLY long ago remarked, the susceptibility of the patient's pupil to the action of belladonna may be carefully ascertained before hand, and no more of the medicine employed than is requisite to produce a moderate degree of dilatation. An equally important and more frequent occasion for using belladonna is in iritis, in order to prevent unnatural adhesions of the iris. According to MACKENZIE, and indeed all the best authorities, it ought to be employed in every case, and in all stages or the disease.

"It may be applied in the manner above mentioned, or a filtered aqueous solution dropped into the eye; and this should be done

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especially in the evening, since the disease advances most rapidly at night. Even when the effused fibrin is not absorbed during the continuance of the dilatation, the iris is at least prevented from contracting adhesions, and, by retaining its natural movements, one obstacle more to the success of subsequent treatment is removed. The earlier in the attack this remedy is administered, the surer will be its success; yet, even after the plastic exudation has acquired considerable tenacity, the steady and prolonged use of belladonna has been known to overcome its hold. In hernia of the iris through an ulcer of the cornea the same means may be successfully invoked. Opacity of the cornea, when circumscribed opposite the pupil, and central cataract in like manner, may be prevented from altogether obstructing the entrance of light into the globe, while the pupil is kept moderately dilated by belladonna. Knavery has made use of this fact to impose upon persons affected with cataract, and almost blind. A few drops of a solution of belladonna, instilled into the eye, has restored momentary vision to the unhappy dupes, as if by a miracle, at the same time blinding them effectually to the trick which was played upon them.

"The various effects which have been enumerated are very rapidly and decidedly produced by atropia. One grain of this substance, dissolved in a dram of water, furnishes a solution of which a single drop, placed upon the conjunctiva, will, in from five to fifteen minutes, dilate the pupil of the healthy eye to double its ordinary medium size, and retain it so during four or five days."

Mr. JOHN E. SLAVERY, House Surgeon to the Northampton General Infirmary, says: "I have lately mixed ʒss. of glycerine with ℥j. of extract of belladonna, when I have used the latter for dilating the pupil; it renders it pliable and elastic, and does not produce that disagreeable tightness complained of when the simple extract gets dry and hard."—(Braithwaite, part 36, p. 210.)

A paper from Dr. PRATHER, of St. Louis, in the Boston Med. and Surg. Jour., Vol. 16, p. 237, has the following intelligence:—

"On the 4th of September, 1836, I was consulted by Mr. S. for defect of vision. On examination I found the visual powers of the left eye irretrievably lost, by the destruction of the cornea, &c. In the right eye lymphatic deposits, of the inferior and internal three-fourths, or a little more, of the cornea, had en-

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tirely destroyed its transparency, and the remaining portion of it was so much clouded that the rays of light could pass through it but imperfectly. There was every mark of ulceration having passed through the cornea in the inferior and internal portion (a short distance from the axis of vision), to which portion the iris was permanently attached. This latter membrane showed indubitable evidence of former inflammation. In consequence of which, and of the attachments to the cornea, the pupil was considerably contracted, and of an oval shape, so much so as to confine it behind the opacity of the cornea and destroy vision in a bright or clear light, and make it very imperfect under the most favorable circumstances, even when the pupil was most dilated. The pupil could only be seen through the more transparent part of the cornea, and showed considerable irritability of the iris from its contracted state under the influence of a strong light, which contributed considerably to impair the vision. He could see to promenade the streets only on a cloudy day or after the setting of the sun. His health was good, temperament sanguine. The history he gave of his case was as follows:—About four or five years since he was attacked with variola, which was severe, and followed by inflammation of the eyes. This raged with great violence for some time, under very mild treatment. Additional advice having been procured, the treatment was made more energetic, and in some considerable degree abated the inflammatory action. But not having obtained relief, some two or three months after the opthalmic attack, and after blindness had existed for some time, he applied to a quack in the neighborhood, who applied "strong plasters" to both eyes, which destroyed a part of the globe, and consequently vision of the left eye, and improved the right to the condition as above described—no alteration, as he says, having taken place from that time until I saw him. Two indications were manifest; either to remove the obscurity of the cornea, or make an artificial pupil by enlarging the naturally contracted one; and a third might succeed, viz. to destroy the attachments between the iris and cornea. To enable me to make an election, I applied the extract of belladonna externally around the eyelids. It had but little effect in dilating the pupil, but what dilatation took place was in a favorable direction, towards the clear portion of the cornea, and consequently improved his vision. I continued it for

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several days, then discontinued it. The pupil reassumed its former position, and the power of vision returned. In consequence of the improvement of vision from its application, the pressure of professional business at that time, and the hope that extension of the parts might make a change, I directed him to continue the application every night, and let it remain till morning—to live on a light diet, and take a dose of Cook's pills every other night. These pills are composed of equal quantities of calomel, aloes and rhubarb. This prescription he continued eight or ten days, when, to my astonishment, I observed that the obscurity of the cornea had disappeared from the absorption of the deposits in that membrane, and particularly in those portions which were the least opaque, and at the inferior union of the cornea and sclerotica, which latter change enabled me to observe some slight enlargement of the sanguinary vessels passing from this portion of the sclerotica to the opacity. I divided them with a cataract knife. Ordered the same prescription to be continued. In four weeks he was able to read large print and write legibly; when he made a visit to a neighboring village, remained four or five weeks, discontinued the prescription, and lived on the most gross diet. On his return he could see to read with facility any print, und write legibly. The irritibility of the iris had disappeared, and the pupil remained more dilated. The obstructions in the cornea had regularly become less and less, notwithstanding the discontinuance of all treatment, and much indulgence in improper food. A short time after this, he left for the South, to commence business. Some may suppose that the dieting and the pills might have been the principal agent. This is settled by his having repeatedly made trial of the same course without the extract of belladonna."

Intolerance of Light.—That consequent upon operations of the eye, or neuralgia of this organ, is not as certainly relieved by local applications of belladonna, as by its internal administration. LISFRANC treated six cases of excessive sensibility to light, by a local application of the extract of belladonna applied around the orbit; they were some of the cases chronic conjunctivitis, and others acute. Dr. JACOB has some valuable suggestions relative to ophthalmic cases, in Braithwait, part 13, p. 311. He speaks highly of the use of belladonna.

Salivation.—Dr. ESPENBECK reports the case of a woman, who

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had been largely treated by mercury, for enteritis. Violent salivation followed the employment of the remedy. Dr. E. ordered the extract of belladonna in the dose of two grains and a half, in an emulsion. The following day the salivation was completely arrested, and the mouth dry. On suspending the administration of the belladonna the ptyalism returned, but disappeared again when the narcotic was resumed. Dr. ESPENBECK has used it with success as a prophylatic against mercurial salivation. (Boston Med. and Surg. Jour., Vol. 52, p. 148.) This is also published in Braithwait, part 30, p. 311. Also in Hanover Corresp. Blatt, and in Dublin Hospital Gazette, Sept. 15, 1854, p. 251.

Incontinence of fæcal matter.—(From the Bulletin Gen. de Therapeutique.) Dr. RICHARDS remarks that he had a boy suffering from this affection, under treatment, which had resisted all the agents usually recommended; that he was induced to try the belladonna, which succeeds so often in cases of incontinence of urine. He prescribed the syrup of belladonna internally, and placed a suppository coated with belladonna pomade in the rectum. Two days after the commencement of this treatment, the child had no more involuntary stools, and was cured of his infirmity. The same treatment was subsequently employed upon four patients suffering from the same inconvenience, and in three the results were very satisfactory.

Lead colic.—Braithwait, part 24, p. 116. Also London Journal of Medicine, Aug. 1851, p. 721. The following plan is adopted by M. MALHERBE, in the belladonna treatment: "on the first day, five centigrammes of the extract, with ten centigrammes of the powder of the root. When the first dose is without effect, that is to say, when neither the pains nor the constipation have diminished, the second is composed of ten centigrammes of extract of belladonna with twenty of the powder. At last M. MALHERBE has gone as far as twenty centigrammes of extract with forty of the powder, but he has not carried the dose farther. With this treatment the greater number of patients have been relieved, from the first to the third day; in the cases in which the symptoms offered a great resistance, and could not be subdued by opium, belladonna has triumphed. Belladonna is considered by M. MALHERBE as an antispasmodic and anticonstipant."

Midwifery.—R. P. STEVENS has published a paper in the Boston

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Med. and Surg. Jour., Vol. 30, p. 501, upon the use of belladonna in various diseases. He has instanced several cases, which would not come under this division.

His 2d, is premature pains. "Seventh month of pregnancy. Patient accustomed to abortion, examination per vaginam showed the uterus to be operated upon spsmodically. Bleeding, pediluvium, opium, morphine, camphor, hyoscyami, gum assafœtida, all failed to give relief. The narcotics were used in large doses. A fledget of cotton, dipped in a saturated tincture of belladonna, quieted the uterine action in twenty minutes.

"P. S.—Patient accustomed to the use of opium."

His 8th. case. Premature delivery. Six and a half months gone. Called twelve hours after birth of fœtus, to deliver placenta. Placenta adhered. Uterus collapsed upon the same. Could not dilate the os tincæ with my finger. Used the ungt. belladonna to the os and neck. In thirty minutes the uterus was dilated. Delivered with the blunt hook. Patient had a quick recovery.

Case 9th. Protracted labor rigidity of the os tincæ; alarming hiccough and vomiting, with sudden cessation of expulsion pains. The slightest touch of the finger to the os, or pressure of the child from change of position, would induce the hiccough, and increase the vomiting. Applied the ungt. to the os tincæ. In five minutes the hiccough ceased, the vomiting soon followed, the rigidity relaxed and the patient fell into a quiet sleep. With the aid of savin and ergot, in an hour and a half the patient was delivered."

Chorea.—SAMUEL MAULT reports the following in the Lancet, for 1850. p. 662:—

"Agnes Campbell, aged fourteen, a dark complexioned, thin, unhealthy looking child, was seized with chorea on the 19th. of Feb. 1849. States that for some time previously she has suffered from a relaxed and disordered state of the bowels; but within the last week her bowels have become obstinately costive. About four days ago she complained of excessive pain in the wrists, but there was no heat or swelling about them. She took a smrrt purgative, which, as soon as it began to act, relieved her of the pain. On the morning of the 19th she began to experience involuntary twitching of the muscles of the arm and forearm; this gradually increased, and in forty-eight hours the paroxysms became very severe; her arms were thrown about in every possible

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direction, and her legs were constantly either drown up, or jerked out at full length with all her strength; sometimes those irregular movements extended themselves to the muscles of the back and sides, and made her writhe and contort herself, so that she presented a most singular appearance.

"As soon as these violent paroxysms came on, it was found necessary to secure her in bed, or she would have thrown herself out every few minutes. At times she assumed the most frightful and hideous aspect, for not only was there involuntary and irregular movements, and twitchings in the muscles of the arm, trunk, and lower extremities, but the muscles of the face participated in the general disturbance, and caused her to contort her face into every imaginable shape. As soon as these movements relaxed, her face assumed a most foolish expression.

"On the 19th, the morning on which the twitchings of the muscles first commenced, she took three compound colocynth pills, and these acted pretty freely on the bowels, and she discharged several copious and offensive motions. The same day she commenced taking a mixture of quinine and sulphate of iron, which she continued taking for three days without any abatement of the symptoms. This mixture was then exchanged for one composed of decoction of cinchona, with Fowler's solution, and this was persevered in for other four days, and still there was no improvement whatever; in fact, the paroxysms increased in intensity and duration. I was now resolved to adopt the following plan, having seen it used with complete success in arresting convulsions having their origin from another cause. A blister about an inch in breadth and eight inches in length was applied along the course of the spine; in twelve hours after, when it was well risen, the cuticle was removed, and a thin plaster of belladonna was applied. (The plaster was made by spreading a thin layer of the watery extract of belladonna on lint.) In half an hour after its application there was a manifest improvement, and within four hours the convulsions ceased, and there was scarcely any movement of the muscles, and the child lay quietly dosing.

"She remained free from convulsions about thirty-nine hours, when slight twitchings recommenced about the mouth and lower jaw. Another dressing of belladonna was now applied, and had the desired effect of removing the twitchings. On the fifth day

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after the application of the blister, another blister was applied, accompanied with a dressing of the belladonna; owing to slight convulsive movements recurring on the left arm, this re-application of the dressing stayed the movements, and from this time the child rapidly recovered.

"It is necessary for me to state that the belladonna dressing was kept on for the period of an hour each dressing. I must likewise state that my patient continued taking Fowler's solution during the whole time the above applications were used, and owing to a torpid condition of the bowels, smart purgatives were administered occasionally."

Numerous other cases might be instanced, showing the beneficial effects of belladonna in this harassing complaint. The best authority for its use may be found in most of our American medical journals, also in those of Europe.

To Arrest the Mammary Secretions.—Belladonna was long ago used as a resolvent for tumors of the mamma, by ALBERTI, ZIMMERMANN, AUTENRIETH, and others, and EVERS recommended it in cases of milk abscess and induration.

Dr. STILLE remarks that "in 1829 Ranque used a liniment of laurel water, ether, and belladonna, with great success, in drying up the milk; and Schnur published several examples of its utility in similar cases. It was not, however, mentioned by subsequent writers on the diseases of females, nor by others, until, in 1856, Mr. Goolden reported his successful use of it in arresting the secretion of milk. His statement was speedily confirmed by Dr. Willey, of St. Paul, Min., Mr. Burrows, of Liverpool, Drs. Harris, of Ottawa, Bacon, and Blythman, Mr. Newman, and others. The last-named gentleman reports success in more than a dozen cases, in which no purgative nor other auxiliary treatment was employed. Some assert that it promotes the flow of milk, while it relieves tension and pain; but others explain this occurrence as the first step towards cure, the milk being ultimately dried up. Dr. Spring has suggested that, in many of the reported cases, the subsidence of the inflammation was spontaneous, because he found the remedy quite ineffectual in true 'galactorrhœa.' The general coincidence of results obtained by the treatment in question, and the rapidity with which they are said to have been brought about, appear to render this objection inadmissible."

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Braithwaite, part 42 (p. 298), contains a valuable paper, and cases illustrative of the influence of belladonna, by RICHARD HUGHES, Esq., M.R.C.S., L.R.C.P., Ed., (Exam.) Surgeon to the Brighton Orthopædic Hospital:—

"CASE 2.—July 1860, Emily H., aged 24, nine weeks after confinement caught cold. When I saw her, I found at the upper part of the left breast a hard swelling elevated above the surface, of about the size of a hen's egg; it was very painful, red, hot, and tender to the touch. There was also pain in the right side, constipation, headache, high fever; and in the course of the preceeding night, there had been some delirium. The fever had somewhat abated since vomiting a quautity of pure bile early in the morning. These symptoms pointed to concomitant derangement of the liver, and soon yeilded to a mercurial pill and saline draught. The state of the breast I treated by suspending the mammæ by a handkerchief tied over the shoulder, and keeping the swelling covered with the unguentum belladonnæ of the *Pharmacopœia*. In twelve hours, all pain had ceased, and there had been no increase of swelling. Next day the redness and heat had gone, some tenderness only remaining. The swelling remained stationary and slightly tender for a few days, then slowly disappeared. The infant was not put to the breast during the mother's illness, and the general fever was sufficient to diminish the secretion of milk; but, as soon as she became convalescent, the flow of milk in both breasts returned as freely as before.

"*Remarks.*—The localised inflammation of the breast to which (from its great tendency to suppuration) this term 'milk abscess' is commonly applied, has now been frequently treated by belladonna. This drug has been ascertained to possess galactifuge properties; and accordingly, being applied in the form of extract or ointment around the nipple in these cases it speedily checks the secretion of milk, and with it the inflammation.

"The galactifuge properties of belladonna are easily explicable upon the theory of its action which I have advanced. Cl. Bernard has found that there are two ways of diminshing the secreting power of a gland—1, galvanising the sympathetic nerves which supply its blood-vessels; 2, dividing the cerebro-spinal nerves which supply its secreting cells. Belladonna, according to my veiw of it, both excites the sympathetic (as by galvanism), and

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deprsses the cerebro-spinal influence (as by section) of the parts it affects. The result of its application to a gland like the breast will therefore be to diminish alike its secreting power and the supply of the material on which that power is exercised. And this galactifuge properity of the drug will be found invaluable on cases of still-birth, premature weaning, and others where the check of secretion of milk is loudly called for.

"But it will be noticed that in the case I have recorded, there was no check of the secretion of milk. Not to speak of the superior practical advantages of a plan of treatment which avoids this unpleasant concomitant, it is obvious that the *rationale* of the cure must be a different one. It seems to me to resolve itself into the simple action of belladonna in exciting the vaso-motor nerves, and thereby contracting the capillaries. The essence of the inflammatory condition, to my thinking, is a morbidly dilated state of these vessels. The exudation from them, on which Professor Hughes Bennet and his school lay so much stress, is surely a consequence only of their preternatural dilatation and fullness. A substance which will contract them, and will save them the necessity of relieving themselves by exudation at all, and, even when this has taken place, will most surely promote its absorption. And this was the view of John Hunter. 'If,' he wrote in 1794, 'we could discover an agent which would cause the contraction of the extreme vessels, we should have in this the true remedy for inflammation.'

"This case, then, of cure of threatened milk-abscess by the local application of belladonna, appears to open a wide field for the treatment of inflammation in general. The three indications which inflammation gives us for treatment are—1. To moderate the force of the heart's action; 2. To diminish the superfibrination of the blood; 3. To reduce the hyperæmia of the part affected. The old mode of affecting the first two objects—in other words of relieveing the symptomatic inflammatory fever—was to bleed, and to give mercury; which may fairly be described as robbing a patient of a portion of his life and poisoning the remainder. A more enlightened practice fulfils the former indication by antimony, aconite, and the other substances which have this physiological effect on the heart; and the latter by low diet diluents, and salines. Third indication—the reduction of the hyperæmia of the part—

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is commonly met by local bleeding and cold. But these are measures only applicable in their fullness to external inflammations, and even they are open to much improvement. Local bleeding, however efficacious, wastes blood, and leaves the capillaries weak and still morbidly dilated; and cold must be continuously applied, to be of avail. We should gain immensely, could we find a remedy capable of acting, whether locally or through the general system, upon the nerves of the inflamed part, so that its dilated capillaries might be aided to that contraction for which Nature is striving, and thus the hyperæmia of the part reduced without the loss of a drop of blood, or the inconvenience inseperable from leeches, cupping, and the continuous application of cold.

"Such an agent I believe we have in belladonna; and I augur an immense advance in our control over inflammation as its use therein becoms extended within the limits which practical experience alone can define. (See the Lancet for August 4, 1860, for a case of myelitis treated by belladonna applied along the spine.)"

Congestive Headache.—Braithwaite, part 43, p. 398. "August, 1860. Mrs. M., æt. 74, for four days in succession had been visited with severe headache, beginning with blindness, and lasting the greater part of the day. Similar headaches, some years ago, had been relieved by leeching. The administration of belladonna was commenced at the first coming on of the blindness, on the fifth day. The attack this day passed off soonner than usual. On the sixth day, there was but a slight attack; and since then there have been none."

The author remarks, that "the remarks made upon the last case will in most respects apply here, substituting congestion for inflammation. The congestive character of the head-aches seemed marked—1. by the accompanying blindness; 2. by the relief formerly afforded by leeches; 3. by the absence of good effect from full doses of Hoffman's anodyne—a medicine which I find invaluable in cases of simple nervous headache. Here the belladonna accomplished the same good end as the leeches, without their expense, inconvenience, or spoliation of the vital fluid.

"The result of this case would seem to indicate the use of belladonna to remove that habitual tendency to congestion of the brain which usually results in apoplexy."

As a Prophylactic against Scarlatina.—Under this heading I

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shall make use of Dr. STILLE'S remarks: "When HAHNEMANN, about the year 1800, was engaged in observing the effects of medicinal agents, he noticed that belladonna produced a papular cutaneous eruption and dryness of the throat. These symptoms he imagined to be a sort of artificial scarlatina, and at once pressing the fact into the service of his new theory, decided that belladonna was the natural specific for curing, as well as preventing, scarlet fever. Thus early, too, he betrayed his unfitness for a liberal profession by vending the medicine as a secret remedy."*

"This alleged power of belladonna," says Dr. STILLE, "has done more, perhaps, than anything else to sustain the impudent heresy of homœopathy, and for that reason practitioners have refrained from testing its truth. To do so (says Dr. S.) is, however, both impolitic and unjust; for the allegation is not in itself repugnant to belief, and, if really true, is too important to be slighted. In estimating the power of any agent to prevent a given event, it is necessary first to know the probabilities of that event taking place independently of all interferences. We know that nearly all unprotected persons exposed to smallpox will contract the disease; hence the protective power of vaccination may be inferred with an approach to accuracy. In the case of scarlatina, on the other hand, the degree of contagiousness is not ascertained, for we constantly see families in which one or two persons only, out of perhaps eight or ten, are attacked. In any given instance, therefore, if belladonna were administered to all the members of the family of which one already had the disease, it would be impossible to say, if the disease did not extend, whether its arrest were owing to the exhibition of the medicine or not. But, it is no less certain, if this substance were given to many families, or portion of families, during an epidemic of scarlatina, and as a general rule, those who had taken it escaped contagion, while a large proportion of those who had not taken it were attacked, it is certain, we say, that the protective power of belladonna against scarlatina would be unequivocally proven, although the exact degree of that power might not be determined. And such, in reality, we believe to be a fair induction of all the facts which have been recorded concerning this question.

* Jos. FRANK, Pathol. Med. (Paris, 1838), ii. 128.

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"Up to 1830 nearly all the published evidence had been collected by BAYLE, who states the following results: Leaving out of the account those authors who have omitted to mention the number of their patients, it appears that, in the midst of scarlatinous epidemics, of greater or less severity, 2,027 children and adults made use of belladonna, of whom 1,948 escaped the disease, and 79 contracted it. These experiments were, in general, performed by competent persons, and the accuracy of their results cannot fairly be questioned. It may, however, be objected that the results are after all, of a negative value, although derived from an extensive observation, and that LEHMANN and one or two others, after trying belladonna faithfully in epidemics of scarlet fever, concluded unfavorably to its protective power.

"The paucity of the cases of some objectors, and the meagreness of the details furnished by others, deprive their opposition of real weight; and, moreover, the circumstances under which some of the experiments above alluded to were performed render it obligatory to accept their results as true, or to believe, what is more improbable, their untruth.

"Thus, DUSTERBERG, at the commencement of an epidemic of scarlatina at Warburg, in 1820, administered belladonna to all the children under his care, but, for the purpose of determining how far the influence of the medicine was real, he witheld it from one child in each family. Every one of the latter was attacked, while but few of the former, and who had taken the belladonna during four or five days only experienced the disease. This instance appears conclusive, for its authenticity does not appear to be denied. Of later experimenters upon the subject under consideration, there are two whose observations were made upon an extensive scale.

"In the winter of 1840–41, M. STIEVENART tested the question in several of the villages around Valenciennes, where scarlatina had already broken out. In one of the villages two hundred out of two hundred and fifty persons took the belladonna, and escaped the fever, while fourteen of the remaining fifty were attacked, and four died. In another village, the medicine was administered to nearly all the pupils of the public school; these without exception, escaped, while several who would not take the belladonna, were attacked. During an epidemic of scarlatina in Buncombe County, South Carolina, Drs. ERWIN and HARDY kept an

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account of two hundred and fifty children who were placed under the influence of belladonna, and of that number, less than half a dozen had the disease, and they but mildly. Those families which did not take the preparation were with scarcely an exception affected. An epidemic of scarlatina occured at the Charleston (S. C.) Orphan house, in 1839. There were 114 inmates of the asylum, and the arrest of the epidemic among them is ascribed to the persevering administration of belladonna. Dr. I. C. MORRIS administered the medicine to one half of the children at the Preston Retreat, Philadelphia, and found that 53 per cent. of these were attacked, while 73 per cent. of the remaining half had the disease. On the other hand, when experiments like the above were tried at Heriot's Hospital, Edinburgh, by Dr. ANDREW WOOD, and at the Orphan's Asylum, Boston, by Dr. ALLEY, it was found, to use the words of the latter, that 'there was no manifest difference between the two classes as to susceptibility to the contagion.

"If, now, (says Dr. S.) we turn to authorities who have not published the details of their experiments so much as the conclusions which they drew from them, and from the collective materials pointed out in a preceding paragraph, we shall still find the prophylactic virtues of belladonna affirmed by the most eminent physicians, particularly by HUFELAND in Germany, and GUERSANT in France; the latter of whom states that he never failed to employ the method we are discussing, and that he had remarked the almost certain immunity of those who were subjected to it. The dissentients from this view include, it is true, several eminent persons, but with the exceptions already stated, they do not, in general, appear to have formed an opinion deduced from any enlarged personal experience, but rather to have based their objections on the result of inadequate trials, or upon a very natural distrust of the original source of the statement that belladonna is a prophylactic against scarlatina. Thus JOSEPH FRANK, in the work above quoted, expressly declares that he had not experimented with belladonna, because the use fo HAHNEMANN'S ridiculous infinitesimal doses is repugnant to common sense, and because he was conscientiously opposed to making a doubtful experiment upon healthy children with a medicinal dose of one the most active poisons. It is enough, in refutation of such arguments, to say that the numerous successful trials which have been referred to, were made, not

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with the phantom doses of homœopathy, but with such as, alhough minute, were sufficient in a great many instances, to produce an eruption on the skin and dryness of the throat, and yet without in a solitary case, giving rise to unpleasant symptoms.

"On a review of the whole sbject, we feel bound to express the conviction that the virtues of belladonna as a protective against scarlatina are so far proven, that it becomes the duty of practitioners to invoke their aid whenever the disease breaks out in a locality where there are persons liable to the contagion, particularly in boarding schools, orphan's asylums, and similar institutions, and among the families of the poor; whenever, in a word, it is difficult to place the healthy at a distance from the sick. The dose which it is proper to prescribe under such circumstances may be thus stated. Dissolve from one to three grains of fresh and well preparaed extract of belladonna in an ounce of cinnamon water, adding a few drops of alcohol to prevent fermentation. Of this solution may be given, two or three times a day, one drop for each year of the child's age, to be so administered for two weeks, or longer, if the danger should continue. It is not pretended that the protection, such as it is, is permanent. On each recurrence of an epidemic the same process must be repeated."

From the Boston Med. and Surg. Jour., Vol. 31, p. 178, E. C. Sugg, M. D., writes to the editor, as follows:—

"Dear Sir: Your able correspondent, Dr. Bachelder, of Massachusetts (see vol. 30, p. 209), was in error respecting the introduction of belladonna as a prophylactic in scarlatina. The doctor says that no trials were made with the belladonna in England until the year 1833. This is a mistake. A friend of mine, Dr. John Williams, of London, made frequent use of the tincture, both as a remedy in, and a prophylactic against, scarlatina, as recommended by the celebrated Prussian physician, Hufeland, in the year 1828. I resided in 1830 in the city of Pittsburgh, and used the tincture as a prophylactic against the contagion of this malady. The disease prevailed in a school in the vicinity of the city; three of the children were attacked with the disease, one of whom, from its malignant character, died on the third day. There were in the school, at that time, fifteen other children, to whom I gave the tincture, and they all escaped the disease. In a small house in the vicinity of this village, last year, were four children

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attacked by scarlatina maligna, and there were also in the house three other children. The youngest of the children attacked, being about 11 months old, died; the others recovered. To the other three I gave the tincture twice a day, for ten days in succession, and they entirely escaped."

DUBOIS had confidence in this agent as a prophylactic in scarlatina.

Dr. BOWDITCH (Boston Med. and Surg. Jour., vol. 56, p. 241,) states that in an institution containing from 70 to 80 children, he had, during an epidemic of scarlatina, to calm the anxiety of persons connected with the establishment, administered belladonna as a prophylactic. A child a few days after its entrance, had been attacked with the disease. The remaining juvenile inmates of the asylum were then, each of them, put upon one-fiftieth of a grain of belladonna daily. Some individuals became nauseated under the use of the drug, but none had scarlatina."

The medical faculty are yet divided in opinion respecting the utility of this agent as a preventive in scarlatina. The administration of the drug in such small doses as recommended is certainly harmless; and, therefore, the author would advise its use during the continuance of epidemics of scarlatina.

Poisoning by Opium.—Dr. ANDERSON, of Edinburgh, starting (as quoted by Dr. STILLE,) from the idea that because belladonna dilates the pupil, it might also counteract those diseases in which contraction of the pupil is a prominent symptom, administered the medicine in several cases of poisoning by opium.

Its effects appeared to answer the expectations of the experimenter.

In a case of poisoning by laudanum, which had reached an alarming stage, and after five hours had elapsed from the swallowing of the poison, Dr. MUSSEY, of Cincinnati, administered, first the extract and afterwards the tincture of belladonna, until, in the course of five or six hours, seven grains of the former and an ounce of the latter preparation had been given. Recovery took place; but, except that the patient complained for a few hours of being unable to see distinctly, none of the peculiar effects of belladonna were manifested.

Two cases are reported by Mr. BELL, of Edinburgh, in which, when alarming symptoms followed the subcutaneous inoculation

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of atropa, they were rapidly subdued by the use of morphia applied in the same manner.

Therapeutic Properties of Belladonna.—Conclusions arrived at by M. DUBOIS. Boston Med. and Surg. Jour., Vol. 40, p. 328; also, Bulletin of the Med. Society of Grand.—(Gaz. Medicale.)

1. That belladonna is not without efficacy in phlegmasiæ, especially in those of the globe of the eye.

2. That it is the best remedy known in the photophobia which so frequently accompanies inflammations of the eye.

3. That its power as a prophylactic in scarlatina can hardly be contested.

4. That it sometimes cures certain hæmorrhages, such as hæmoptysis, hæmatemesis and mettorrhagia.

5. That it is a remedy *par excellence* for neuralgia, for hooping cough, and most of the neuroses.

6. That it is a remedy *par excellence* to combat pain, especially when external.

7. That it alleviates more than any other remedy the pains of cancer, and cures sometimes, if not cancer, diseases closely resembling it.

8. That it can be advantageously employed in spasmodic contraction and occlusion of the pupil; to reduce procidentia of the iris, and to break up adhesions; to prevent the inflammation of the iris so frequent after this operation; to maintain dilatation of the pupil, and to diminish the chances of adhesions after the operation of couching; to prevent secondary cataract; to re-establish vision, temporarily at least, when the lens is opaque in the centre, or when there are opacities of the cornea; to assist the diagnosis in some diseases of the eye.

9. That it is of real efficacy in some cases of strangulated hernia.

10. That its property of facilitating labor in spasmodic constriction of the uterine neck is powerful and incontestible.

11. That it produces advantageous results in some cases of fissure of the anus.

12. That its employment may be more or less useful in spasmodic contraction of the bowels, in constipation in spasmodic constriction of the rectum, of the anus, and of the vulva; in phimosis and paraphimosis, spasmodic stricture of the urethra,

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retention of urine, strangury, spasmodic stricture of the larynx and œsophagus; in blepharospasm, incontinence of urine, nephritic colic, hemorrhoids, &c.

13. Finally, that belladonna should be placed in the first rank of medicinal substances.

A medicine so active as this agent should be administered with great caution, and be vigilantly guarded by the physician. In many cases it might be well to begin with one-sixteenth of a grain of the extract, and gradually increase the dose as circumstances might require, until the pupil gives evidence of its specific effect upon the system.

Administration and Doses.—Belladonna (says Dr. STILLE) may be administered in substance, infusion, extract and tincture. One grain of the powder of the roots or leaves, and one quarter of a grain of the extract, are the average doses which it is safe to begin with. They may be gradually increased until the pupil becomes affected. An infusion, made with one scruple of the leaves to half a pint of water, may be given in doses of half a fluidounce every four or five hours. Of the tincture, which is officinal, the dose is fifteen or twenty drops for an adult. In the United States the extract is employed almost to the exclusion of other preparations of belladonna. It is used to make an ointment (ext. belladon. ʒj to ʒij, adipis ℥j), and a plaster (ext. belladon. ℥iss, emp. sapon. ℥ij), which is a convenient application in slight local pains of a rheumatic or neuralgic character. Sulphate of atropia may be given in the dose of from one fiftieth to one twentieth of a grain.

DOMESTIC EMPLOYMENT OF CASTOR OIL IN CHINA.—In China, castor oil is constantly employed for the ordinary purposes of life, as we should use olive oil or butter, its evacuant action having become subtended by force of habit. The Chinese, however, sometimes forget that Europeans do not enjoy this immunity, and M. Stanislas Martin relates that several years ago some French envoys believed themselves to have been poisoned by the mandarins, who had invited them to dinner. All the dishes had been prepared with the oil of *palma christi*, which induced a terrible purgation; but happily the discovery was made before reprisals, for what appeared to have been traitorous conduct, were taken.—*Med. and Surg. Reporter.*

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Is Alcohol Food?

Read at the Annual Meeting of the British Medical Association, August 8th, 1862, by Thomas Inman, M. D. (Lon.), Physician to the Liverpool Royal Infirmary.

The author first devoted a few words to definition, stating that by "alcohol" he intended to comprise those liquors in common use which owed their effects to alcohol; and by "food," anything which supplied material by which the body was nourished. He then adverted to the fact that a saccharine material was found in the blood of all mammals when it entered the lungs, and to the strong probability that a fermentative process took place in those organs, with the extrication of carbonic acid, the actual source of which in the blood had not yet been absolutely ascertained. The close atomic composition of starch and sugar and alcohol *plus* carbonic acid was pointed out; also the fact that the starches, &c., and alcohol were often tolerated by delicate stomachs when other ingredients were not tolerated.

The author then shortly summarized the effects of ordinary food, whether animal or vegetable, when taken with water for a beverage and in proper quantity, and compared these with the results following a temperate draught of ale or porter; showing that there was no real distinction between the one and the other, except that the liquid sooner entered the circulation and sooner left it. It was no argument against the use of beef that a man who had dined on it one day wanted a dinner the day after; nor against beer, that a person who had taken one glass was ready for another in a few hours. The prejudicial effects of excessive eating was adverted to, and after mentioning a few instances where guzzling had proved fatal, others were alluded to in which a prolonged lethargy or an apoplectic condition had been induced. The use of beef tea sometimes produced convulsions in infants, but this result did not vitiate the dietetic value of meat. The physical condition of excessive eaters was then spoken of, and it was shown that some were thin, others stout; and that as regarded the moral condition of those who, from choice, religious belief, or necessity, abstained from the use of alcoholic beverages, they were to the full as bad as those who indulged in drink. Cannibals were teetotallers, and neither Nana nor Tippoo was a drunkard. On inquiring into the habits of total abstainers and those who drank ale, wine, &c., the author had ascertained that the former habitually ate much more than the latter; and one of three deductions was necessary: either the former ate too much, the latter too little, or the drink of the one was equivalent to a portion of the food of the other. To ascertain which of these alternatives was nearest the truth, Dr. Inman had experimented in his own person, and had made numerous observations through the assistance of friends. The conclusion he came to was that which had been previously insisted on by Mr. Lewes and others,—namely, that alcohol replaced a certain amount of food; and "as things which are equal to the same are equal to one another," he inferred that if a glass of ale was equal to a slice of mutton in its satisfying effect, and that mutton was food, it must follow that ale is food. To say that persons could not live on ale, was of no value as an

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argument; for no one could live on biscuit alone, though bread was called the staff of life. To ascertain how far it was possible for any one to live on alcohol alone, he had for many years been seeking information respecting drunkards, and he mentioned two—one on the authority of the individual herself (a surgeon's widow), and the other on the authority of the medical attendant, where patients had subsisted for a prolonged period on brandy-and-water alone. He mentioned others on the authority of other medical friends, and two which he had himself been conversant with. He combated the idea of the probability of imposture, inasmuch as in all these cases solid food was loathed excessively, and was generally rejected by the stomach. He then mentioned some cases of children he had attended, in whom the appetite had failed entirely, where food which had been administered by force had been vomited, yet in these alcohol in one form or other gave the support which other food did not, and gradually restored the appetite to its normal state. He noticed, too, that infants at the breast, when ill, would digest brandy-and-water when they would reject all else. The advantageous influence of this fluid was apparent, even if it were administered in enemata.

A definite course of induction, irrespective of chemical theory, having ended in the conclusion that alcoholic drinks were strictly alimentary, he shortly referred to the statements which were relied upon to demonstrate the contrary. If alcohol, he said, passed out of the system unchanged, so did water; yet water was absolutely necessary to life. But there was no proof that all the alcohol imbibed in a long symposium ever left the body. He inferred that if it did pass out of the lungs in vapor as largely as was assumed, a party of spirit drinkers would make the atmosphere of a closed room explosive; and he recalled the statement of Pereira, that some northern race had found that two or three people in succession might keep up intoxication with "lium temulentum" by drinking the urine of the first eater; yet none had discovered that the urinal of a drunkard contained anything equal to gin. But certain foods, as oatmeal, bran, potatoes, oats, &c., were not wholly retained in the system, yet they were alimentary.

Dr. Inman then combated the idea that alcohol was a mere stimulant, by contrasting it with turpentine, cantharides, ginger, cayenne, iodide of potassium, and other drugs, which were stimulants to every part of the body to which they were applied. He argued that alcohol could not simply be a conservator of tissue; for a glass of ale after a long walk would induce plentiful perspiration, and a glass of whiskey or gin-and-water acted with most people as a powerful diuretic. Nor could we conclude that it assisted in disintegrating the tissues; for if it did, the use of ale, wine or spirit must then be antagonistic or antidotal to food, and the winebibber must necessarily require more food than the teetotaller, whose tissues were not disintegrated by artificial means.

He then summed up his conclusions thus:—

1. Nature has provided in the salivary glands, the liver and the lungs of every mammal an apparatus for converting all food, especially farinaceous, into alcohol; and we have no evidence that such conversion does not take place.

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2. One form of alcohol or another is available for the support of life, and for restoration to health when no ordinary food can be or is digested.

3. Alcohol, after being taken, is incorporated with the blood, passes into the various tissues, and ultimately disappears, a small portion only passing away in the breath. We can say no more of bread, potatoes, or oatmeal porridge, a small portion of each of which passes out of the body with the fæces.

4. Alcohol, in the form of ale, porter, wine, &c., relieves hunger and quenches thirst simultaneously, and with a completeness that is not equalled by water, infusion of gentian, cayenne pepper, or by turpentine—i. e., it does not act as water simply, or as a stimulant alone.

5. Wine, beer, &c., satisfy the appetite when taken alone, and act for the time as any solid food would do.

6. When alcohol is mingled with other food, a less amount of the latter suffices for the wants of the system than if water had been used as the drink.

7. The various forms in which alcohol is taken have as marked and specific effects as have animal and vegetable articles of diet.

8. Individuals have subsisted wholly upon one or the other of the various forms of alcohol in common use for periods of great length; and as it is illogical to conclude that they must have lived on air, without food, or on flies like chameleons, the conclusion is irresistable.

What that conclusion is, it might be left for every thinking man to decide. —*London Lancet; Boston Med. and Surg. Journal.*

On the Treatment of Chronic Hydrocephalus, by the Iodide of Potassium.

By James Lester, M. D., C. M., Belleville, C. W.

It will be the object of the following pages to shew the advantages of a mode of treatment of the disease in question, which has not yet been noticed by systematic writers on the Practice of Medicine; and if alluded to in some medical publications, has not had the importance attached to it which, in the opinion of the writer, it certainly deserves.

As the present paper is written with a practical object, it will not be deemed necessary to enter into a lengthened description of the history, causes, frequency, symptoms, prognosis, and diagnosis, of Chronic Hydrocephalus; these are known to every medical man, and will therefore be passed over.

The disease is one which manifests itself in a clear and palpable manner; and the return to a healthy state shews, in an equally marked way, the powerful influence exerted by the remedial agent recommended.

A short review of some of the remedies which have been in traditional use, will first be made, and I shall then proceed to show the superiority of the method of treatment above alluded to.

"The internal remedies by which most good appears to have been effected,

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and from which therefore most is to be hoped, are diuretics, purgatives, and above all, mercury, which is believed by many to have a special and powerful influence in promoting absorption. Conjointly with these the abstraction of small quantities of blood from the head, by means of leeches, has been found beneficial." So writes Dr. Watson on the subject, and after giving two cases of the disease where a peculiar method of administering crude mercury in conjunction with fresh squills and manna, was found useful, alludes to the mechanical remedies of bandaging and tapping.

The above extract it is believed contains the names of most of the remedies in ordinary use among medical men, and if to the list just mentioned, counter-irritation to the scalp, iodine, and cod liver oil given internally, be added, we have nearly the sum total.

1st. Diuretics.

With regard to remedies of this class, it is my firm conviction, from some little experience in the treatment of the disease, that given *simply* they are utterly useless. Whenever any benefit has appeared to have been derived from them, it will be found that mercury in some form has been administered with them, and has been the real cause of the temporary improvement.

In a case mentioned by Dr. H. Bennett, diuretics were given after paracentesis had been performed, and seems to have been used merely with a view of meeting a diminution of the quantity of urine passed, which invariably followed the operation. Of course under these circumstances they may have been of service as adjuncts to the previous tapping, but it has yet to be proved that they exercise any perceptible influence upon the progress of the disease. The only reason indeed which can be given for their use, is the analogical one, if one may coin an expression, that as they have been very serviceable in other dropsies, they ought to be of use in dropsy of the brain.—How unfortunate it is that nature will not listen to reason.

2nd. Purgatives.

I now pass to a most important class of remedies, and one which has proved to have been of great benefit at various times. At the very commencement of the disease I have often remarked an amendment follow the use of an active aperient; and the temporary improvement noticed during the whole course of the disease, as a result of the free action of the bowels, is too familiar to all practical men to be further enlarged upon.

But although there is a favorable change for a time, I fear that it cannot be said that the continued use of purgatives is at all likely to cure the disease. It must be borne in mind that the subjects of chronic hydrocephalus, are seldom free from a scrofulous taint, and that they do not bear depletion well. Any long continued drain upon the system, would in the opinion of the writer, tend to increase the accumulation of the fluid in the cavity of the skull, instead of diminishing it. It is also to be remembered that the majority of cases of the disease are found in the young, and a course of cathartic medicine cannot be used with them for a long time with impunity.

The mercurial purgatives are those which I have used with the most advan-

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tage, but I confess I have employed them only with the intention of paving the way for the iodide of potassium.

Mercury.—I have had no experience of the effects of the treatment by crude mercury and manna. Different preparations of this mineral seem to be the favorite remedies for chronic hydrocephalus. Almost every author who writes on the subject, speaks in very high terms of the valuable effects of calomel. The objections to this plan of treatment appears to be that it cannot be persevered with for a sufficiently long time, and the system is left in a very debilitated state, even should it prove partially successful. In all the cases of the disease that have come under my notice, the scrofulous element has been marked, and I felt unwilling to push the employment of the remedy as far as others have done. In some cases where it was used, the emaciation produced by it was very great, and the effect upon the disease, though decided, was not sufficient to warrant one in persevering. I fear that this may appear a summary way of disposing of a medicine which has always had enthusiastic admirers, but I can only say that after giving it, what I considered, a fair trial, I have for many years discontinued its use, and now only employ mercurial preparations occasionally as purgatives. That mercury has a powerful effect in promoting absorption, no one can doubt; but this is not the only object to be aimed at in the treatment of the disease under discussion. A constitutional taint has to be guarded against, which is constantly manifesting itself in a number of ways, and which I believe can only be successfully eradicated in early years; and at the same time a languid assimilation of nourishment has to be stimulated. I fear that mercury will never prove adequate to this three-fold task.

Leeches.—However useful the abstraction of blood may be in acute inflammation of the brain, I have never seen a case of dropsy of the brain even benefited by by leeching. As cases have been adduced by authors to the contrary, I can only look upon the alleged benefit, as resulting from the counter-irritation caused by the leech bites. When used conjointly, with other remedies, I suspect they have been applied as mere routine.

Mechanical Remedies.—Bandaging, or compression by other means, may be of use as an adjunct to the internal treatment by the Iodide. By itself I cannot think that it is likely to succeed, although several instances have been quoted to the contrary. Of course it can only be employed when the enlargement has reached a certain limit and has become stationary; and before the skull is ossified.

The method of treatment I am endeavoring to recommend, can be put in practice at any stage of the disease.

Tapping the Skull, has been successfully performed in a very great number of cases, but the number of patients who have had the operation performed unsuccessfully is I fear nearly as large.

I have never seen a case which required it, as under the free use of the Iodide of Potassium internally, and the Tincture of Iodine to the scalp, at the commencement of the disease, the enlargement has been checked, and though in

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many cases it remains stationary for some time, it has never in my experience failed to yield to the remedy.

The other remedies may be briefly discussed. Iodine has occasionally been given, but it is a difficult thing to induce children to take it, and is very apt to disagree with the stomach.

In conjunction with iron I should think it most likely to prove useful, but have not yet had an opportunity (or rather have not seen the necessity) of using it.

Counter-irritation to the scalp, is a very valuable addition to the treatment, but I fear without the Iodide internally would not prove of much use.

Cod Liver oil I have also seen of use, and from the scrofulous nature of the disease, I should be inclined to give it a trial in the absence of the more powerful remedy I am bringing to notice.

The occasion on which my attention was first called to the powerful effect of the Iodide of Potassium in curing chaonic hydrocephalus, was to me, a young practitioner, ardently watching for every opportunity to raise to a conspicuous place among my medical brethren, one of intense gratification. The humble cottage and the pauper patients, (mother and child) are as freshly imprinted on my memory now after a lapse of six and twenty years, as they ever were; and though my services were gratuitous, I can look back on the treatment of that pauper mother and her Idiotic infant with the most heartfelt satisfaction. On being called to visit the persons who are the subject of these remarks, I found the mother laboring under idiophatic Tetanus, and on opening the door a most violent tetanic spasm was induced. I had to wait till the the poor creature was temporarily released from the fit, to ascertain the exact nature of her case, during which time I may remark, the poor infant fell helpless from its helpless mother's arms to the floor. This happened before I had time to rescue it, and while I was intently watching the poor mother's agony.

The child was fearfully emaciated. I looked on it as beyond human help, and hoped that death might terminate its sufferings. My attendance on the mother continued four and five times daily for several days, till I had the satisfaction of establishing her health, when other duties called for thought and action elsewhere. After some months, a young medical friend, House Surgeon to the North Devon Infirmary, England, called my attention to the idiotic child, and said he regretted I had not treated the child while the mother was under my care; remarking, that on the recovery of the mother, the child was brought to the Infirmary, and under the steady and continued use of the Iodide of Potassium internally, and Tincture of Iodine to the scalp, was restored to perfect health. In my long, and I hope not useless professional career, I have had that case as a guiding star, and it has never led me astray, nor deceived me; and I thank God, through its instrumentality, I have been the humble means of restoring to many a heart-broken mother her offspring, not only snatched from an untimely grave, but what was a far greater affliction, from the vacant unrecognizing stare of idiotcy, and implanting reason firmly on its throne.

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Since I first began the employment of the remedy, I have met with and treated fifteen cases of the disease. (No deaths have occurred from the disease itself.) One of the patients died of typhus fever at eleven years of age, and the other a considerable time after the treatment of her case by me, of whooping cough. I think this will compare favorably with any method of treatment recommended by authors.

I shall now adduce four cases of the disease in evidence, selected as being more marked in my memory, and as having occurred within the last ten years. In 1855, in the spring of the year, I was requested to visit I. G———, aged ten months; the father was a man of extremely irregular habits, and the mother's disposition was irritable to a degree. The disease had made its appearance at the date of teething, and had advanced to a very considerable length when placed under my care. The frontal suture was open, frontanelles remarkably tense and enlarged, the forehead projected over the eyebrows. The mental faculties were very dull, the child remained in a languid, listless state, and at times great irritability was manifested; the digestive functions appeared to be feebly performed, and the lower extremities remarkably undeveloped; great emaciation of the body and pallor of the face were conspicuous. The disease was advancing rapidly on my first seeing it, and the weight of the head made the child unwilling to raise it.

The treatment was commenced at once by giving a mercurial purgative, and after the bowels had been well acted on, two scruples of the Iodide of Potassium to six ounces of water sweetened with syrup, of this mixture one teaspoonful was given every four hours during the day. The hair was cut very close, and Tincture of Iodine painted over the whole surface of the scalp once every day. It required great resolution to enforce this part of the treatment, as the child appeared to suffer from it. This treatment was strictly and resolutely adhered to for about a month, when the first positive signs of amendment began to appear. There was less of the lethargy and heaviness noticed, the legs became more developed, and the infant made successful attempts to move them. The change, however, was very gradual; after a time the appetite improved, the pallor gradually wore off, and the emaciation became less marked. The appearance of the head was remarkable, the size did not appear to diminish very much, but ossification began to take place in the fontanella and membrane between the sutures. The further progress of the disease was completely arrested, the face filled out, intelligence returned to the features, and in twelve months from the commencment of treatment the child was perfectly well. Some little deformity yet remains from the disease, having been allowed to proceed so far without treatment, the head is larger than in other children of her age, and the forehead more projecting. The child is now as well, active, and lively, as other girls of her age, and her intelligence just as acute. It would be difficult to show a more clearly marked case of cure.

The second case occurred in 1856. The child, a boy, was two years old when first seen. In this case the enlargement was not so well marked at the forehead and occiput as in the other; ossification had taken place, but the head

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was much larger than in other children of his age. Convulsions had set in, and marks of pressure such as squinting, rolling of the eyes, even very evident loss of power in the legs, the child being unable to walk or even stand alone, and appeared uneasy unless it could find a rest for its head; face very much flushed, and eyes injected. The mother stated that the child suffered very much while teething, and had disturbed her rest so constantly that she gave large and continued doses of Godfrey's Cordial, to procure sleep. This pernicious practice had unquestionably a great share in inducing the disease. The mother appeared much distressed at the prospect of the child being a confirmed idiot, and readily promised to persevere in the treatment recommended, in spite of the advice of officious neighbors, which is the curse of country practice.

Two smart purgative doses of calomel and scammony were given each week for about one month, or till the flushed and congested state of the face and head was removed; at the same time the Iodide of Potassium was given, and some time after the scalp was painted with Tincture of Iodine; in six months this child was perfectly restored, was able to run about, and is now a strong robust boy.

The third case occurred about five years since. L. S———, a female infant, apparently healthy at birth, had an attack of jaundice. (It may be here remarked that several other infants of this family suffered from the same disease.) The father, a man of intemperate habits, and broken down constitution, the mother, an American, of leucophlegmatic temperament. The scrofulous taint is strongly marked in all the children. At four months old enlargement of the head was noticed, and the case came under my care. The usual symptoms of the disease were present, the fontanelles open widely, frontal suture unclosed, great weight of the head, and very marked want of development of the lower extremities; convulsions occurred, and the child's eyes were persistently directed downwards, and constantly rolling from side to side; appetite not much impaired, but bowels much constipated. In this case calomel was largely used as a purgative, but in spite of its employment the disease advanced until the Iodide of Potassium was freely given. The favorable change that took place after its administration was very gradual but none the less marked; the child in about nine months recovered perfectly from the disease, and is now healthy and strong. Even at this date the head is large for the age of the child, but intelligence is perfect and the lower extremities are well developed, not differing from other children in this respect.

The fourth case occurred last year. On the 10th of July an infant was brought to me with every appearance of the disease. It lay moaning in its mother's lap, incessantly moving its head from side to side, and unwilling to be touched. The body was robust in this case, and apparently well nourished, but the enlargement of the head well marked; the parents had the scrofulous diathesis; the same loss of power over the lower extremities was noticed; age ten months. The eyes had a vacant idiotic look, and squinting existed to some extent. The same treatment was enforced, and the child brought to the surgery at intervals of six weeks. The last time the mother was here, in March,

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the infant had regained the power over his lower extremities, was running about and playing, and the face had assumed the appearance of returning intelligence; ossification had taken place, and the fontanelles were closed. The case, though very much improved, is still under treatment, and I have no doubt will terminate as those already given have done, in complete recovery.

I am aware that the treatment I have been endeavoring to lay down has been occassionally practiced, but I do not think it has been patiently carried on for many months, as in the cases given; and I think I may with perfect justice claim the merit of being the first to carry it out to great extent in Canada. Of its advantages the cases given have spoken; by its use the effusion has disappeared, and strength has been imparted to the enfeebled body; as already stated, I have not met with an unsuccessful case; compared with those destructive means of mercury, the application of leeches, and the hazardous *dernier resort*, tapping,—I think it will stand out in relief as a rational mode of cure.—*British American Journal.*

Nitric Acid in Hooping Cough.

The majority of the community supposes that hooping-cough is a disease for which but little or nothing can be done—that it must have a certain course, of several week's duration, that nothing can shorten or mitigate its severity. Many physicians seem to act upon the same idea, and do but little for such patients, and that little has no reference to an *arrest* of the troublesome disease. Hooping-cough is not so harmless a disease as many would regard it—the mortality it occasions is certainly by no means small; Dr. West says it ranks *fourth* among the causes of death under five years of age—inflammation of the lungs, convulsions and hydrocephalus being the only more fatal ailments. Dr. Condie makes it also fourth in mortality under five years of age—bronchitis, croup, and pneumonia being more fatal.

Our experience justifies us in saying that we know that hooping-cough responds to appropriate treatment, with perhaps as much certainty as any other epidemic of equal severity. Certain are we that many lives might be saved, that are now annually lost, if patients were subject to professional attention and judicions treatment, as in measles or scarlet fever.

In the *Boston Med. and Surg. Journal* for February 13th, Dr. H. Holmes has an article upon pertussis and its treatment, in which he speaks highly of *nitric acid.* The following is his formula:

℞ Acidi nitrici dilut.....f ʒ xij;
Tr. cardamom. comp.....f ʒ iij;
Syr. sympl.....f ℥ iijss;
Aq. puræ.....f ℥ j.—M.

To a child about four years of age, he would give a teaspoonful of this mixture every two hours. When convalescence is well commenced, two teaspoonfuls may be given three times a day.

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This is by no means new treatment for hooping-cough: we, however, call attention to the subject because we think the formula given is a very convenient mode of administration. So far as we know, Dr. Gibb, of London, was the first to *advocate* this method of treatment, which he did in the *London Lancet* for August 12th, 1854. We are not sure he was first to *use* it, for he acknowledged that his friend, Dr. Arnoldi, had, at that time, treated more than one hundred cases of pertussis, with this medicine, with the most pleasing results.

Dr. McNally, of Tennessee, speaks highly of the remedy under consideration in hooping-cough. In the *Charleston Med. Journal and Review* for January, 1857, Dr. Charles Witsell has an article upon the same subject. He administered it sweetened, and diluted so as to resemble lemonade; of this the nurse was directed to give the patients as much as they could drink. This we regard as rather an indefinite direction, and yet he claimed remarkable results.

Others have used the remedy with similar results in the disease under consideration.

Before leaving the subject, we may observe that, for several years past, we have been in the habit of treating hooping-cough with *belladonna*, and we have been quite satisfied with the results. In this disease, children will bear an unusually large dose of the remedy, especially if commenced in moderate doses and gradually increased. One habit has been to commence with a medium dose, the age of the patient considered, and then to gradually increase until the *specific effects* of the remedy were observable. So soon as the specific effects of the remedy were obtained, the disease would at once yield, and remain in abeyance, even to a perfect cure, under diminished doses of the belladonna. Occasionally, effects are produced that, in some measure, alarm the friends. The nitric acid may be a more agreeable medicine—certain are we that we shall give it a trial on the first suitable occasion. The comparative merits of the two remedies shall be tested.

It may not be improper to observe that a few physicians speak very highly of a strong syrup of *coffee* in this disease, and others of a syrup or strong decoction of *clover hay*. Others recommend a free use of *rennet whey*.

With some one, or a combination of the above remedies, we are confident that hooping-cough need not continue through several months, but may be cut short and virtually ended in two weeks. In our experience, ten days, under belladonna, usually ends the disease, so far as all danger and inconvenience are concerned. We are sure that many lives may be saved, if physicians will but do their duty in this disease, as in others of similar severity and fatality.

Should our readers be induced to try either of the remedies just mentioned, we hope they will report results—favorable or unfavorable. We are confident the disease will be conquered. It seems to us that belladonna, assafœtida, and some tonic, as quinine, iron, or one of the mineral acids, promise most.—*Med. and Surg. Reporter.*

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On the Treatment of Burns.

By Prof. Rosse.

In truth, there can scarcely be said to be any special treatment of burns, the loss of substance resulting from their influence being repaired by the same processes as prevail after any other form of destruction of the cutaneous surface. Much depends upon the depth to which the injury has extended, for while a destroyed epidermis is rapidly reproduced, when the skin has suffered to a great depth, or throughout its entire substance, the reparation after the separation of the mortified parts, may be very tedious, in consequence of the great loss of substance, or of the unsuitable character of the parts affected for cicatrical formation. The contraction after cicatrization is also often great, both from this loss of substance and from the position of parts, as in the bend of the limbs, being favorable to such contractile action. It is, however, an error to suppose that greater contraction follows burns than takes place from similar loss of substance from other causes. When the skin has been destroyed only through a portion of its substance, this contraction is not observed, only smooth cicatrices analogous to those of small pox being present.

Not only is the period required for reparation and cicatrization after burns dependent upon the depth to which the injury has extended, but it is still more so on the inflammation of the skin which it has given rise to. This may effect not only the part actually burnt, but the adjoining parts, and may give rise to a secondary destruction of the skin, or at all events obstinate suppuration, which will delay the healing process, this circumstance which by its complexity and its consequences chiefly renders our prognosis uncertain, yet the other point, the determination of the depth to which the burn has extended, is by no means always an easy matter at first, even for the most experienced observer.

When the epidermis is merely lost or raised up into bullæ, the treatment of burns is simple enough. The serum should be discharged from the bladders by small punctures, without removing the epidermis. The necessity of covering the exposed nervous papillæ explains the success of various empirical applications; and even the solution of nitrate of silver acts only in this way. The exposed cutis becomes covered with a thin layer of gelatinizing albumen, and the deposit which ensues upon the application of the nitrate solution produces a protective crust. Lead and chalk water act in the same way, and cotton wool, the most suitable and simplest of all dressings, thus protects the exposed parts from the action of oxygen, and from mechanical contacts.

After two or three days, the physiological condition of the parts is different, the exposed papillæ having, in consequence of a growth of cells and vessels, become covered with a protective covering. The excessive sensibility has diminished, suppuration may have occurred, and perhaps here and there, deeper penetrating inflammatory action has been set up. We have now to seek whether

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we can moderate this inflammatory action, and favor the formation of epidermis. But, in fact, we can do little in the matter. If the injury is superficial, the healing will soon take place, under the use of the most different and sometimes absurd means; while if the inflammation has penetrated deeply, do what we will, the cure will be slower. We may resort, according to circumstances, to various antiphlogistic applications. When the mortification of the skin is superficial, it is quickly thrown off, leaving a retiform granulating surface, and art has here little to do besides protecting the parts from injury. When the mortification extends deeper, we have no specific means for hastening the suppuration of parts which must precede separation. Such separation is a physiological process, and our intervention is limited to the prevention of its being obstructed. But the separation having taken place, have we any means of hastening the growth of granulations or of suppressing them when too luxurious? Physiology and clinical experience alike declare that nothing need be done. The granulations, if too prominent, will afterwards recede without the aid of caustic; and the smoothest cicatrices will be found in those cases in which least interference has taken place. When, however, the wound is advancing towards cicatrization, the condensation of the connective tissue, and its covering with epidermis, are much favored by a protective covering of adhesive plaster.

In the extremest degree of burns, when the skin is destroyed throughout its entire substance, we have to do with a condition of great surgical importance, cicatricial contraction, which although of the highest utility in lessening the surface of the wound in some cases, proves in others the most serious detriment. The employment of adhesive plaster is of great service in regulating the contractile power of the cicatrix. Thus, suppose a longitudinal loss of substance on the anterior surface of the index finger exists, there is no better means of regulating the direction of the cicatrix which will ensue, than surrounding the whole finger with small strips of plaster. These act in three ways. 1. The circular application displaces the skin from left to right, and favors the cicatrix in a transverse direction, in which no contraction can occur. 2. Contraction in the longitudinal direction is also prevented by the finger being kept stiffly bound up, so that its flexure is difficult. 3. The plaster exerts a very decided influence in preventing or remedying that projection of the cicatrix which is so remarkable after longitudinal loss of substance at the bend of joint and in the neck. In the summer, in various parts of the body, we may obtain from the use of plaster beneficial effects which no other means will furnish. So also the contractions supervening on burns which have been improperly treated, are so easily, rapidly, and completely remedied by the methodical application of plaster, that the cases must be seen to obtain belief. Most aggravated cases, which those acquainted with the simpler means would suppose to be amenable only to the knife, and others for which this has been in vain resorted to, have readily yielded to the application of plaster. It was Mr. Tamplin who first drew attention to this mode of treatment, and Professor Roser's experience has amply confirmed the truth of his statements. He has

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been quite astonished at the success which attends the treatment of the worst cases of contraction of the fingers. The plan consists essentially in surrounding the part with small strips of plaster, and making counter-pressure at the contracted flexures by means of small balls of cotton wool.—*Brit. and Foreign Medico-Chiurgical Review; Cincinnati Med. and Surg. News.*

Cases Reported before the New York Medical and Surgical Society.

Stated Meeting, June 1, 1861.

NEURALGIA FOLLOWED BY SUBACUTE INFLAMMATION.

Dr. Bumstead related a case of neuralgia of the face and head, which proved fatal, with symptoms of subacute meningitis. The patient was a nervous female, who was confined last November. After her confinement she became much enfeebled, and began to suffer from neuralgia of the face and head. This was ineffectually treated with large doses of quinine, and with quinine and iron combined. Occasionally the neuralgia was accompanied with nausea and vomiting. She passed from the care of Dr. Bumstead into the charge of a homœopathist, and about two weeks since was seized with convulsions and died. No autopsy was obtained.

EXCISION OF NERVE IN NEURALGIA.

Dr. Markoe related the case of clinical patient on whom he operated for tic-douloureux, by the removal of a portion of the inferior dental nerve. The man had suffered during a period of ten years several attacks annually. During the past two years, his sufferings have been almost without cessation, and aggravated occasionally by very severe paroxysms. Section of the supra-orbital nerve had produced but little or no effect; the mental nerve had also been divided without relief. The pain had lately become localized in the mental and dental branches—occasionally radiating to upper branches. A removal of a portion of the dental nerve was advised. This operation was performed. The bone was laid bare and chiselled so as to expose the canal of the inferior dental nerve. One inch of the nerve was removed. It seemed congested and considerably hypertrophied, but microscopic examination did not detect any change of structure. The relief of the pain was almost immediate. He has had but one slight paroxysm of pain since the operation, six weeks ago, and is now well enough to return to his occupation. Dr. Markoe thought the case remarkable for the rapid subsidence of pain after the operation. The sensibility of the jaw is being gradually restored.

Dr. Parker, in connection with the discussion that followed, related a case where he removed an inch and a half of the posterior tibial nerve for neuralgia, affecting the ramifications of this nerve in the foot. The pain subsided for a time after the operation, but returned. The limb was then amputated. The specimen, which is now in the museum of the College of Physicians and

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Surgeons, shows that the continuity of the nerve was restored after the operation, either by the formation of nerve or of substance capable of performing the function of nerve.

FIBROUS INFLAMMATION RESULT OF PRESSURE.

Dr. Allen detailed the history of a man thirty-five years of age, living on Long Island, who, about two years ago, fractured both bones of the leg near the ankle joints. The foot was bound so tightly to the foot-board of Amesbury's splint, by the surgeon who attended him, that it caused him great pain. The surgeon refused to loosen it, and the patient himself finally cut the bandages and found the integuments of the foot of a livid hue; no sloughing followed however, and union was effected without deformity. Ever since the removal of the bandages he has suffered constant and intense neuralgia, just below and behind the external malleolus. The pain is never paroxysmal, but constant, and the tenderness exquisite. There is slight puffiness of the part, and the pain is aggravated by twisting the ankle.

Some discussion arose as to the cause of the pain in this case; the general opinion seemed to be that it was not properly neuralgic, but dependent upon fibrous inflammation.

Dr. Parker alluded to a similar case, where the pain was located above the ankle-joint, and where complete and permanent relief followed a free subcutaneous incision at the seat of pain.

ACCIDENTAL BREAKING OF CATHETER IN URETHRA.

Dr. Buck related the following history. A woman, æt. thirty-five, who had been dependent for some time on the use of the catheter for the relief of the bladder, recently, by the accidental breaking of the silver catheter she was using, lodged two inches of it in her bladder. Dr. Buck, soon after the accident, searched for it with a slender pair of dressing forceps and failed to extract it. The following day he made a second attempt with the small urethral forceps, and failed again. He resorted once more to the dressing forceps, and succeeded in securing the piece by the end so as to withdraw it without difficulty.

STRICTURE OF RECTUM.

Dr. Buck also related a case of stricture of the rectum. The patient was a woman, aged twenty-four, of healthy appearance. On examination per rectum, he discovered about two inches above the anus an annular stricture, not scirrhous in character. Per vaginam he found a firm fibrous tumor, of even contour, in the posterior cul-de-sac: he could sweep with the finger almost the entire circumference of this tumor, and it was slightly movable. The woman suffered occasionally bearing-down pains, and the stools were hard and difficult. On distending the anus with a speculum, the stricture was readily observed. This was divided anteriorly and posteriorly, and by tearing the tissues the finger was carried well above the stricture, so as to reveal the fact that the supposed fibrous was in reality a fæcal tumor. The woman had never had dysentery.

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Stated Meeting, Sept. 20, 1861.

INSIDIOUS PROGRESS OF RENAL DISEASE.

Dr. Elliot related a case illustrating the slow and insidious progress of renal disease. A gentleman applied to him seven years ago to get medical counsel as to the propriety of his undertaking some work that would involve considerable mental as well as physical labor. A thorough physical examination was made. The urine was found to contain oxalate of lime, and on one occasion one or two desquamative casts were observed. Since that period his health has been very good and is now, but a morning specimen of urine exhibits a specific gravity of ·1004, which Dr. Elliot regards indicative of renal disease. Dr. Elliot has several times observed cases where repeated examination of the urine has failed to show albumen, and yet careful microscopic examination has detected casts of renal tubes.

Dr. Bulkley alluded to a case of anasarca which had been under his observation for some time, which he believed to be dependent on renal disease. Two months ago the anasarca had nearly subsided, and since then the patient had suffered only from occasional gastric derangements. The urine maintains a specific gravity of ·1010, but Dr. B. has never been able to detect either albumen or casts.

Dr. Bulkley related another case where he first suspected renal disease from a persistently rapid pulse and œdema of the feet, in a gentleman he examined for life insurance; he could not, however, find casts or albumen in the urine. There was no cardiac disease. Last winter the patient had an acute febrile attack, during which the urine was examined and found to contain albumen, blood, and casts. His general condition is now good, though he still has some œdema of the feet.

MISCELLANEOUS CASES.

Dr. Post recalled the attention of the Society to a case related last winter, in which he operated upon a child four years old for a cicatrix from a burn which deformed the hand and arm. The flaps sloughed extensively after the operation, but the child has recovered at the end of eight months, with a straight arm, and with the functions of hand and arm perfect.

Dr. Post also related a singular case of pelvic tumor occurring to a lady, forty-nine years of age, who had suffered for some time from obstinate constipation and severe abdominal pain. On examination per rectum, a tumor was detected which consisted in an intussusception of the lower portion of the descending colon, and the margin of the invaginated portion seemed to be of a scirrhous nature.

Dr. Post related a third case. A woman, æt. twenty-seven, presented herself at the clinic, having a tumor the size of a walnut on the palmar surface of the middle finger, very firm and slightly movable, supposed to be enchondromatous in character. It was found to be attached to the sheath of flexor tendons, and a number of smaller tumors were found below it and between the flexor tendons, and some of these were attached to the synovial membrane of

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the first phalangeal articulation. The patient did well after the operation, and the case illustrated the slight consequences that sometimes follow wounds of synovial cavities. A fourth case was alluded to by Dr. P., one of enlarged bursa underneath the patella, through which he passed a filiform seton. The seton was removed at the end of six days, some suppuration occurring in its track. Afterwards too violent exercise brought on severe inflammation, which terminated in suppuration and recovery.—*Am. Med. Times; Cincinnati Med. and Surg. News.*

Colchicum and Veratrum.

At the April meeting of the Suffolk District Medical Society of Mass., Dr. Jackson spoke of the treatment of acute rheumatism, and of the great variety of internal remedies that had been recommended. He had tried them all, more or less; and with some, that had been vaunted as heroic, he had most signally failed. Every one has observed, he remarked, how differently the same drug will act in apparently similar cases in the same season, and still more in different seasons. Colchicum was the one that of all others he was in the habit of using, and the powder of the root was the form of preparation that he very much preferred, being the most reliable. Many years ago, he saw a case of acute rheumatism that had been relieved several times by the wine of colchicum, but the disease returned in all its severity as soon as the effect of the medicine passed off; the powdered root was then substituted, and the relief was not merely rapid but permanent; the case being a particularly impressive one from some of the collateral circumstances. Dr. J. said that his partiality for this preparation of the drug, dated from the time when he saw it used by Dr. James Jackson in his practice as physician of the Massachusetts General Hospital; other remedies were used and also other preparations of colchicum, but the one referred to seemed the most effective.

Half a drachm of colchicum was mixed with two drachms of cream of tartar, and an adult would take this amount in twenty-four hours, in an acute attack; one-fourth part every six hours, or one-sixth every four. Diarrhœa, with more or less pain, will begin in about forty-eight hours, and some will say that the medicine relieves the disease like any other cathartic, but Dr. J. did not believe in this idea; occasionally there is nausea or giddiness, but still more often Dr. J. had seen the pulse become slow and halting, and sometimes quite irregular; this effect upon the pulse continuing perhaps for several days after the medicine is omitted, and being quite alarming to one who is not used to it, and as it was in the particular case above referred to. It did not, like veratrum viride, produce stricture of the chest. He had not found the latter drug so effective in reducing the heart's action as it had been stated to be by others. The preparation he had employed was the tincture.

Dr. J. C. Dalton said that his early experience confirmed Dr. Jackson's in the use of colchicum in rheumatism. He generally used the powdered seeds.

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Dr. Abbot said he had never found the veratrum to fail to lessen the frequency of the pulse in the cases in which he had tried it. He referred to the case of a woman under his care, suffering from pneumonia of the upper lobe of the right lung, with compression of the left by extensive pleuritic effusion, who suffered extremely from paroxysms of dyspnœa occasioned by attacks of violent palpitation. In this the veratrum viride acted like a charm, in a very short time checking the violent action of the heart, and limiting with the greatest precision the number of its beats, giving the patient great comfort. He had heard no complaint of its causing stricture of the chest, but he had known it to produce nausea.—*Amer. Drug. Circular and Chemical Gazette.*

[From the London Medical Times and Gazette.]

Subcutaneous Injection of Quinine.

LETTER FROM DR. JAMES M'CRAITH.

Sir,—I have to report a continued success in the treatment of intermittent fever by the subcutaneous injection. Dr. Chasseaud reports having treated 150 cases with success by this method, which we may fairly call his: others may have done this before; and the subcutaneous matter applied to various diseases, and by various mediums, is not new; but he has the merit of showing its value on a large scale, when applied to intermittent fever, and with solution of sulphate of quinine. To his 150 cases I can add 30 or 40 cases of success. The solution we at present employ is the following:—℞ Aquæ distil. ʒj, sulph. quinia ʒj., and nitric dilut. sufficient to dissolve completely the quinine in the stated quantity of water. The advantage of the nitric acid is, that it dissolves the sulph. quinine easily, requiring abnut one drop for each grain, and the salt is not disposed to crystallise easily; perhaps the acid muriatic may make a more difficultly crystallising combination. The non-crystallisation of the salt in the fine nozzle of the syringe is the point aimed at. In no case was there any local irritation after the injection of this solution.

The spirit solution mentioned in my last had some inconveniencies: the spirit evaporated quickly, and left a clammy state of the instrument, frequently plugging up the nozzle of the syringe, and this required spirits of wine to get rid of. It left the fingers of the operator clammy. It was followed by some slight irritation, and in a few cases a lumpy feeling remained under the skin. Dr. Chasseaud, by using a small screw syringe, made expressly for subcutaneous injections, has accurately determined the quantity of solution used—20 drops, equivalent to 2¼ grains of sulph. quinine, are sufficient. This syringe is useful, as each turn of the screw piston is equivalent to one drop.

Now, we find this "injection method" of treating intermittent fever extremely useful in various ways, besides the immense economy of quinine, which of itself is of extreme importance. I will endeavor to point out a few of its advantages which we have already recognised. There is a class of cases

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common enough in this country, and in all warm malaria countries, and known as cases of "remittent fever." Those cases are accompanied by gastric symptoms, pain in the epigastrium on pressure, red tongue, fever almost constant. Though "au fond" is an intermittent, its cause malaria, still it is disposed to assume a continued type, and very frequently passes into typhoid. Those cases are described by Mailhot, who has written the truest, most honest, and scientific description of malaria fever. In his work they are described as "pseudo continues," and "pseudo continues devenues typhoides." Now, those cases bear very badly the dose of quinine necessary for their resolution; on account of the state of the stomach, the exhibition of quinine seems to throw the patient more quickly and more certainly into the typhoid state. The subcutaneous injection has not this inconvenience; on the contrary, so far as we have had an opportunity hitherto of testing it, the result is most satisfactory. I have had one such case, a most successful one, and Dr. Chasseaud at the hospital has had, he tells me, five or six successful. If only applied to this class of cases, Dr. Chasseaud's method is of very great use. Another fact which was noticed is this:—Quinine given by the mouth, immediately before the commencement of an anés, invariably aggravates that particular anés, though preventing the return of others; whereas, the injection practised under similar circumstances, even after the cold stage has commenced, has invariably reduced that anés to almost nothing; has, in fact, cut it short, the attack lasting a quarter of an hour in place of six or eight hours. Dr. Chasseaud has had this result in many cases kept on purpose many days to observe the natural course of the disease (chiefly tertian), and kept many days after the injection to observe if any return took place. Now, in pernicious, or malignant ague, in which every anés puts the patient's life in denger, to stop a coming anés is frequently of vital importance. The dose by the mouth absolutely necessary, aggravates the anés if given just at its commencement, and so adds to its danger; whereas the injection modifies it in a most favorable manner. This is of great importance in the treatment of those cases.

The instruments I use are very simple: a small lancet just sufficiently broad to make an opening in the skin large enough to let the nozzle of an Anal's syringe pass, with the syringe itself. Upon injecting the solution, I press it in all directions in order to diffuse it in the cellular tissue, before I withdraw the syrnge, in order that it may not escape on withdrawing the latter.

I am, &c. JAMES MCCRAITH, M. D.

SMYRNA, August 26.

SANITARY INSPECTION IN LONDON.—There are about 13,000 houses in the City of London, of which 6,620 are under sanitary inspection, and are regularly visited every three or four months. There was a higher general state of health in the city during the last quarter than during any corresponding period for the last six years.—*Dublin Med. Press.*

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[From the American Medical Times.]

Foreign Correspondence.

By Prof. Chas. A. Lee.

Clermont, Department of Oise, France, Aug. 21, 1862.

This beautiful village is situated some fifty miles north of Paris, in the Department of Oise, in one of the finest and most productive agricultural regions of France. It is now in the midst of the wheat harvest, and more than one half of the whole territory between this and Paris is covered by one of the heaviest crops of this cereal ever known in the kingdom. It is also a very fruitful wine-growing region, some of the finest champagne being produced in this vicinity.

My object in visiting this place has been to examine the private insane asylum of the brothers Labitte, and the famous "Colony of Fitz-James" connected with it. The private asylum was founded some thirty years ago, by the father of the present proprietors, but the "Colony" dates only from the year 1847. As it is the only institution of the kind in France, and established, as it seems to me, on a correct principle, namely, that employment, and especially *agricultural labor*, is not only one of the most successful modes of treatment of the insane, but also the most advantageous in an economical point of view, I trust that some account of the establishment may prove acceptable to your readers. In the year above named, the institution was organized by one of the brothers taking the general charge or superintendence; another took charge of the agricultural department; a third of the medical treatment of the males; while Dr. Woillez attended to the medical management of the females. This arrangement continued until 1850, when Dr. Gustavus Labitte assumed the entire management, aided by Dr. Pain, an adjunct physician, two internes, or house-physicians, and an apothecary. At first, about ninety acres of land were cultivated in the immediate neighborhood of the asylum, on the border of the village. They soon, however, perceived that it would be more advantageous to have the farm at a greater distance from the asylum, so that the laboring class of patients would have no intercourse with the others, and their employment be better regulated.

To carry out this plan another large farm, of nearly five hundred acres, was purchased, about three-quarters of a mile from the village, but adjoining that already under cultivation; pleasantly located, perfectly healthy, and easy of access. To this farm forty strong and quiet male patients were removed, and this may be said to have been the commencement of the colony. The results of this experiment far exceeded the expectations of the proprietors, and very soon other buildings were found necessary to accomodate the increasing number of inmates. Improvements and additions have from time to time been made, till now a most complete and extensive establishment has been created, the entire means having been derived from the profits of the system of organized labor. For the last four years, during which the system has been fully

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and completely carried out, the most remarkable success has been witnessed; in all curable cases the most prompt amelioration has been observed; those who appeared indocile, untractable, and unabled to prform any serviceable labor, have been found perfectly manageable and docile, and their mental restoration kept pace with the improvement in their bodily health, proving that agricultural labor is the true Hygeian fount. Male patients are transferred from the asylum to the colony, according to their condition, and if necessary, they are retransferred to the asylum, an event which rarely happens. This employment in the open air, in such kind of agricultural labor as seems best suited to the general strength and adaptation of the patient, *solves at last the restraint or non-restraint problem*, and shows conclusively that if there is a proper channel in which muscular and nervous energy may be exerted (and this is found to be the true one), it will not break out into anomalous, irregular and violent manifestations. This is the channel originally opened by Omnipotent Wisdom for the disordered race of fallen man. The idea of constraint and confinement does not even enter the mind of these apparently happy and contented laborers. They mingle freely in each other's society, they enjoy the largest liberty, they talk, laugh, joke, in short, they act like other human beings, and as they would *not* act, if they were shut up in dark, padded rooms, confined by straight-jackets, strapped to their chairs, lashed to their beds, or held by their attendants. As I entered the main building, a smart rain drove a large number of the patients inside the walls for shelter, and I saw nothing in their looks or actions which distinguished them from the ordinary class of French peasants. They all had a cheerful, healthy look, and their conduct was every way proper. Who will not exclaim with me as I left the place: Surely, every lunatic asylum should have its AGRICULTURAL COLONY? There may be difficulties in aristocratic communities, like those of England and our Southern States, where labor is deemed disgraceful, and idleness or amusements only honored; in such countries, where the wealthy madman is considered far better than the poor plebeian insane, and companionship with a humbler class something contaminating and degrading, we can hardly expect this system to be fully adopted, if attempted at all. Hence, in the private lunatic asylums of Great Britain we see nothing of the sort; the spade, the hoe and the shovel, the rake, the scythe, and the sickle, are strangers to such establishments; and if the camerrole, the handcuff, the strap, and the manacle are equally rare, there is the dark padded room, which restrains the whole body, if it leaves the hands and the legs free; and I have known patients in such establishments remain thus secluded and confined for days, months, and in one instance a year, without any human society whatever, who, I have no doubt, would have been speedily restored to health, mental and bodily, if subjected to the exercise, orderly discipline, and hygienic influence of systematized agricultural employment. And this is dignified by the appellation of the *no-restraint system*. This "Colony of Fitz-James" is so called from a village of the same name, and is about a mile and three-quarters from Clermont, in the beautiful valley of the Breche, which is here from ten to fifteen miles wide.

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About thirty-five acres are surrounded by the river Beronnelle and a wall, so that if any of the patients had a desire to escape, which rarely if ever happens, it would be found somewhat difficult; the greater part of the farm, however, is without any inclosure. The colony is divided into four sections, each perfectly distinct from the other, and having its particular destination. The *first section*, that of direction or superintendence, is occupied by the dwellings of the director, and male pay patients. The *second* is the *farm* proper, where the colonists reside. The *third*, that of the *small chateau*, is devoted to the female pay patients; while the *fourth*, the section of *Becrel*, is occupied by the females employed in washing, and laundry. The total number of patients belonging to all the sections is 306. The *first section*, as I have stated, that of *direction*, comprises a dwelling of two stories, occupied by the director and the pay-patients, and commands a view, on one side of the farm and its dependencies, situated at the extremity of an extensive lawn, traversed by the river Beronnelle, near the village of Clermont and the valley of the Breche. On the opposite side, adjoining the meadow, is the *Becrel section* and the village of Fitz-James. The part of the dwelling devoted to the boarders, consists of a basement divided into billiard, sitting, and dining rooms, apartments for the overseer or superintendent, a saloon which serves as a parlor, etc. On the second floor are twenty rooms for males. The patients who occupy this section are tranquil incurables and convalescents.

2. The *Second Section* comprises the farm-buildings and the dwellings of the colonists. The latter is entirely separated from the farms, and has a view on one side of the village of Clermont, the section of superintendence, and the valley of the Breche; and on the other, of the cultivated fields belonging to the farms. The ground floor is occupied by ample apartments for the physician, the kitchen and day-rooms; the second and third stories are divided into five extensive dormitories. This building has a spacious court, planted with trees and flowers, with a grass-plot in the centre. The farm buildings cover about five acres. There are extensive stables, in which I counted near thirty white farm horses of the large Boulognais breed; a large barn containing threshing and other agricultural machines, a mill for grinding wheat, etc., all operated by steam power; extensive and well arranged buildings for cattle, sheep, and swine, of which large numbers of the best breeds are always kept. For example, I counted forty-two very large and beautiful cows, a cross between the Durham and Flemish, famous for dairy purposes; about one hundred swine of the Berkshire and Suffolk breed, some from the late Prince Consort's model farm at Windsor, many of which had taken the first premium at different agricultural fairs in France. There are also well constructed abattoirs or slaughter-houses, in which I noticed two slaughtered fat oxen, six sheep, and two calves, which I was told was the daily allowance for the inhabitants of the asylum and colony. In the winter, swine are substituted for calves. These, with the extensive sheds for carriages, carts, agricultural instruments, tools, etc., make up the principal buildings. A Swiss cottage on the Beronnelle creek contains a hydraulic ram which distributes water over the farm for purposes of irriga-

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tion, and also carries a mill for making cider; near the engine-room are two extensive and well arranged bathing-rooms, with every convenience found in such establishments. I also visited wine and cider vaults, containing immense pipes, each holding many hogsheads of cider made on the premises. A liberal allowance of both these beverages, Dr. A. Labitte informed me, was allowed to the patients.

The section of the *Small Chateau*, appropriated to female pay-patients, is a country house situated at the extremity of the inclosure of the Colony bordering on the village of Fitz-James, and separated from the farm meadows by the small river Beronnelle. It commands a distant view of the farm, and the section of the superintendent. This section occupies about fifteen acres, which are appropriated to a lawn and park. The main building consists of a ground floor, containing a dining hall, a saloon, and three rooms for the overseer; while the second floor is divided into five apartments. Adjoining this building is a wing containing the kitchen, bathing-rooms, woodhouse, etc. The *Section Becrel* is also situated at the extremity of the inclosure of the colony, and commands a view of the section of the *Small Chateau*, the farm, and the sides of the valley of the Breche. It is now occupied by one hundred and seven females, who are all occupied in laundry, both for the asylum and the colony. It comprises buildings for the patients and the laundry; the former consisting of a ground floor divided into apartments for the superintendent, a promenade, a refectory for eighty-seven indigent patients, a saloon and dining-rooms for twenty pay patients, and a second story divided into three dormitories. The buildings devoted to the laundry are opposite the first, and are composed on the ground floor of a folding clothes room, two rooms for depositing foul clothes, a bathing-room, a wash-room, etc. The wash-room is so constructed, that a branch of the Beronnelle flows through it, thus constantly renewing the water in the reservoir, around which the washing is carried on, on the smooth slab inclined inwards, the females standing at their work. In drying, the clothes are first exposed to hot air, and afterwards to the open air. The bnildings above named surround a an open green-sodded court, planted with trees and flowers, and embracing two and a half acres.

In regard to the administrative and religious organization of the Colony, which is under the exclusive control of M. Auguste Labitte, it is of course dependent on that of the Clermont Asylum. M. Alexandre Labitte is the subdirector, having charge of the administrative service and the agricultural department. Under him is one responsible employé, a superintendent of the pay-patients and the farm, a superintendent of the section of the Small Chateau, and one for that of Becrel; in short, all the personnel of the colony, which is composed of thirty two men and thirteen women, thus classified:— 8 domestics for the service of the section of direction for the farm; 7 conductors of detachments; 4 gardeners or keepers; 7 carmen or drivers; 2 cowherds; 1 shepherd, 1 miller, 1 butcher, 1 chief mechanic, 1 cook.

For the section of the Small Chateau, four domestics are employed; for that of Becrel, 3 guardians or keepers, and 5 superintendents of the workshops.

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The Curate of Fitz James is the chaplain of the Colony. Both male and female patients attend religious service at the village church, there being no chapel connected with the establishment; a want which will doubtless be sooner or later supplied.

An internal, or house-physician, resides at the Colony, and sees to the carrying out the medical prescriptions. The physician in-chief makes a visit of two hours in the middle of the day. He orders all the changes or transfers from the asylum at Clermont to the colony, and *vice versa;* he prescribes the kind of labor for each patient; in fine, the whole moral and disciplinary management of the entire colony. As changes are constantly occurring in the mental condition and bodily health of the patients, so these transfers are correspondingly frequent, and the colony is thus complementary to the asylum, whose inmates are always so numerous (now reaching over 1000) that those displacements can always be made without injury to the general organization. When a colonist is afflicted by a return of his disease, or an exacerbation, which requires special treatment and surveillance, he is immediately re transferred to the asylum at Clermont. The Colony is thus only the rendezvous of the strong and docile, who quietly submit to the ordered regularity of the service.

The medical end in view is to surround the insane, as far as possible, with the customs and habits of social life; life in common, occupations always useful, liberty wisely restrained. All these circumstances must necessarily introduce among the colonists friendly and reciprocal relations, interest them in their labors, and inspire them with sentiments of personal consideration, which lead them to appreciate services of which they are capable, and banish from their minds every idea of seclusion and restraint. No physical restraints are permitted; every intractable patient is immediately sent back to the asylum; and this transfer is a punishment which they greatly dread, and of course seek to avoid.

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447 Louvre Hotel, Paris, August 30, 1862.

In my last letter I gave some account of the colony of Fitz-James, and the lunatic asylum connected with it, at Clermont (Oise), conducted by Dr. Labitte. I was accompanied in my visit, as I have also been to several other asylums, by Dr. Brown, of the Bloomingdale Insane Asylum, near New York, who is inspecting similar establishments in Europe, at the request of the Trustees of the Sheppard Asylum at Baltimore, Md. This institution was founded by the late Moses Sheppard, a wealthy merchant of the Society of Friends, who, several years before his death, conceived the project of testing the curability of unfavorable cases of insanity, by a more liberal expenditure of money than the friends of most asylums would reasonably permit. To this end Mr. Sheppard, having no relative, left his whole fortune, amounting to six hundred thousand dollars, to found and maintain an experimental institution for one hundred patients. After several years of careful consideration, the Trustees of the Sheppard Asylum have commenced the construction of

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their building, on a plan submitted by Dr. Brown, who now studies the organization and management of European asylums, to report whatever may serve to carry out the humane purposes of the benevolent founder of this unique institution. Dr. Brown, after having visited the most celebrated asylums in Great Britain, Holland, Germany, Switzerland, and France, expresses regret at having found, thus far, but inconsiderable rewards for the commendable liberality of the Board he represents.

I have also visited the most noted institutions of this kind in England and France, and with the exception of the agricultural colony at Clermont, I have seen nothing deserving of special commendation which is not also found in our own country. Indeed, I think, as a general rule, we are considerably in advance of the old world in the successful treatment of the insane, and our statistics will show a larger percentage of cures than can be found in the large majority of European asylums. And it is very natural that it should be so. Americans are the most practical people in the world; they are not easily led to adopt novelties merely because they are novelties, but which have nothing else to recommend them; but they speedily introduce every improvement which is founded in reason and common sense, and which promises any practical benefits, wherever it may have originated. The unreasonable and obstinate prejudice which exists in Great Britain, against adopting anything new from foreign countries, fortunately does not exist among us, and hence we are never found lagging far behind in the race of improvement, and the march of civilization. Hence, Prof. Ackland, M. D., of Oxford, who accompanied the Prince of Wales in his recent visit to the United States, expressed surprise that American physicians should visit Europe to examine lunatic asylums, for they would find better ones at home, as at Philadelphia, under the charge of Dr. Kirkbride (and, I may also add, at Bloomingdale, under the charge of Dr. Brown), than can be found in Europe. Such I know to be the opinion of the most enlightened physicians of England, Germany, and France, who have made themselves acquainted, by personal observation, with such institutions on both sides of the Atlantic.

In England I visited, among others, the great establishments of Hanwell, Colney Hatch, Bethlehem Hospital, etc., also the private asylums of Dr. Conolly and others, but I saw nothing which is not well known and carried out in the United States. The Commissioners of Lunacy have, no doubt, effected many reforms, and corrected many evils, though they have not always sufficient power to carry out the improvements which they recommend; still public opinion, sooner or later, corrects the evil, and the public reap the benefit of their wise and practical suggestions. Such Boards are needed in our own country, and it is to be hoped that it will not be long before all our states will adopt a similar measure. There will, necessarily, be more or less clashing and friction between such boards and the trustees and managers of insane asylums, but this is incident to all supervisory bodies, and must be expected. Still, the evident benefits and improvements which they effect is a sufficient answer to the objections sometimes brought against them.

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In company with Dr. Hills, of the Ohio State Lunatic Asylum, I visited the great lunatic establishment at Charenton, which is designed by the French government as the model institution of the kind in France. It is organized on a grand scale, more than six hundred thousand dollars having been recently expended in its reconstruction. It is situated on an elevated plateau, or rather terrace, protected from northerly winds by the parc of Vincennes, and commands an extensive prospect of the valley of the Marne and the Seine. The numerous sections, all furnished with galleries, courts, lawns, etc., allow of more classifications than can be found in any of our asylums. There are fountains in all the courts, and water is abundantly furnished for baths, etc., to every part of the establishment. The courts and buildings, also, are all lighted with gas made on the premises, which is introduced into all the rooms and dormitories.

All of the rooms fronting the river command a very extensive and beautiful prospect, and the pay patients are each furnished with a separate apartment, and a place for the attendant to sleep. Both male and female wards are connected with extensive gardens and forests, where they walk a considerable part of every day. There is a farm also connected with the establishment, where the patients are "invited to labor," some of whom accept the invitation. But I could not learn that many of the patients were engaged either in gardening, horticulture, or agriculture; for there is not that system of organized labor which is so successfully carried out at the colony at Clermont. Many of the females are employed in needle work, embroidery, etc.; and there is a professor of music attached to the institution, who gives daily lessons in music; there is also a library, lecture-room, billiard-room, etc., provided for their recreation and amusement. Some are taken out in carriages to ride, music and dancing parties are held twice a week in the grand saloon, and as many of the customs of the world and French society are introduced as are thought useful or expedient. The establishment is placed under the authority of the Minister of the Interior, and is presided over by a director appointed by the Minister. There is also a "Consultive Commission," whose members are taken from the "Council of State," the "Court of Cassation," and the "Court of Accounts," appointed also by the Minister, and whose services are gratuitous.

The annual allowance for the establishment is proposed by the director, with the advice of the consultive commission, and approved by the Minister, to whom an annual report is made. The financial affairs come under the cognizance of the "Court of Accounts." Dr. Cabmeil is the Physician-in-chief, aided by several resident assistants. A chaplain also resides in the institution, who daily celebrates mass in the chapel. All the religious services are celebrated with the usual pomp of the catholic church, accompanied by the organ.

The dormitories are spacious, well lighted, and airy, and the passages warmed by iron pipes under the floor; but it struck me, as well as Dr. Hills, that there was generally a lack of proper ventilation. The day was, however, very hot and sultry, and no air stirring.

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Patients are received here as boarders, and gratuitously on an order from the Minister, who has a certain number of *bourses* at his disposal, to be applied for a limited time in favor of persons having a claim on the government. There are three classes of boarders: the first, those who pay 1425f., and upwards; the second, 1125f.; and the third, 823f., including washing. Certificates signed by medical men, not more than a fortnight before admission, are to be presented on behalf of lunatics previous to their admission, and certain formalities have to be complied with. Having a general ticket of admission to all the hospitals of France from the Minister of the Interior, we wore freely shown through every part of the establishment, which, we have no doubt, is admirably managed. The ordinary means of physical restraints are here employed to a considerable extent, and are, in my judgment, preferable to padded rooms and complete isolation, as practised in British institutions, as society seems indispensable to recovery. The establishment now contains about nine hundred patients.

The great Hospice *Salpetrière* is both an alms-house and a hospital, chiefly for incurable epileptic or lunatic patients, and patients advanced in age. It contains 5204 beds, of which 2917 only are occupied by real patients. It is an immense establishment, consisting of forty-five distinct buildings, extending 1680 feet in length. The hospital receives, first, the *reposantes*, women who have been in its service thirty years, and who are upwards of sixty; second, indigent old women, upwards of ninety, afflicted with incurable maladies; third, insane and epileptic females. The lunatics, of whom three-fourths are considered dangerous, are kept in separate infirmaries and treated with the greatest care. I saw several hundred of them sitting at the supper-table, each with an ample allowance of wine, and a plate of ripe plums and apricots, besides bread, etc. It was a delightful sight to see the cheerfulness of the old ladies, and hear their merry chat as they partook of their evening meal.

The *Bicêtre* is situated on lofty ground, differing in this respect from the Salpetrière, and enjoys a more salubrious air than most of the Parisian hospitals. It is an asylum for indigent old men and male lunatics, and receives about two thousand patients. It presents a square of about nine hundred feet on each side, and contains three courts. The indigent and infirm old men occupy the greater part of the building. They have no private rooms, but there are large rooms with workshops and dormitories, as also several gardens and court-yards for exercise. They are obliged to work three hours a day at their respective trades, or other occupations, and receive in return a a share of the profits; the rest goes towards defraying the expenses of the establishment. The daily allowance to the indigent is a portion of soup, a pound and a quarter of bread, four ounces of meat for dinner, vegetables or cheese at night, and a quarter of a pint of wine. The average daily cost of each is nine sous (cents), and the total annual expense about nine hundred thousand francs. The number of lunatics, idiots, and epileptics is about nine hundred, who have the same allowance as paupers, except a larger allowance of bread. Physical restraint, by straight jackets, etc., is very common. Gen-

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erally, however, the treatment is very mild, and daily employment is given on a model farm and bleaching-ground, where are also sties for breeding swine of superior breeds. This farm not only supplies the establishment, but produces sufficient to partly supply the other Parisian hospitals. There are various kinds of schools in the establishment for lunatics of all ages. Instrumental concerts are often given by the patients. Voisin, Delasiuave, and Moreau are the physicians having charge of the lunatics.

There are also numerous private asylums in the neighborhood of Paris, the most celebrated being that founded by Esquirol at Ivry, Dr. Marcet, of the Bicêtre, being resident physician; the *Maison de Santé du Chateau, Sainte-James, près Paris*, and the *Maison de Santé* of Dr. Blache, at Passy. The establishment of *Sainte-James* is near the Bois de Boulogne, and is carried on by Dr. Casimer Pinel, the nephew of the celebrated Pinel. It is a very extensive old chateau, built in the reign of Louis XV., and in the style of that age, and was occupied during the reign of Louis Philippe by M. Thiers, his minister, the distinguished historian. The grounds, which occupy several acres, are handsomely ornamented with flowers, shrubs, and trees, artificial lawns, grottoes, and bodies of water, etc. There is a large productive kitchen-garden, and a variety of fruit trees. The walks are pleasant and well shaded, and there is a commodious billiard-room excavated from a solid rock. There are several buildings appropriated to the patients who belong to the wealthier classes, and pay from seven to twelve hundred dollars annually. Nearly all have their own servants. The two sexes occupy distinct premises. The attendant sometimes occupies the same room with the patient, but more frequently an adjoining one, separated by lattice-work. The fire and lights are also placed in the servant's room, and are inaccessible. The main building seemed to me very poorly adapted to the purpose of an insane asylum, many of the rooms being small, and not being well lighted or ventilated. The Doctor is a member of the legion of honor, and an author of distinction. He very politely gave me several of his works on insanity. He is a great advocate for the use of prolanged baths, and long continued dripping of cold water on the head in certain cases of insanity, and has written a treatise on the subject. He has also written a work on the "Isolation of the Insane," which he deems advisable in a large majority of cases; not at home, but in a public or private asylum, and indispensable for the poorer classes. He insists on the great importance of resorting to it at as early a period as possible, and believes that the incurable cases originate from a neglect of isolation in the beginning of the disease.

The Doctor resorts to the usual modes of physical restraint in all violent cases, and where the patients are inclined to injure themselves or others. He is about sixty, of affable and agreeable manners, and enthusiastic in his specialty. He numbers about forty patients. The private institution of Dr. Blanche, at Passy, is also located in an old chateau of the age of Louis XV., built by Prince Carignan, and occupied by his descendants for many generations. During the French Revolution it was occupied by the Princess Lam-

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balle, who was seized in this very house and dragged before the Revolutionary Tribunal, to be brutally murdered by the mob before she could reach the guillotine. Extensive additions have, however, been made by Dr. Blanche, so that it is now tolerably well adapted to the purposes of such an establishment. The premises occupy several acres, which are well laid out in walks, pastures lawns, etc., and planted with ornamental trees and shrubbery. Each patient has his own attendant and a separate apartment. Each patient pays, on an everage, about one thousand dollars annually, some more, some less. Physical restraints are freely used, as preferable to padded rooms. Dr. Blanche does not believe in isolation, nor in prolonged baths, nor water drippings on the head. There may, possibly, exist some rivalry between him and Dr. Pinel, for they are rather antagonistic on many points. The Doctor spoke highly of Arnot's water-bed for paralysed cases. To the question, why general palsy was more frequent than formerly, Dr. Blanche replied that the people lived faster than they used to, used up their nervous agency sooner than they formerly did, which I conceive is the true explanation. He said that domestic unhappiness was a very frequent cause of insanity; that there were few happy marriages in France; that those in Paris could easily be counted; that most of those who lived together were not man and wife, etc. I hope he is mistaken.

Dr. Blanche showed Dr. Brown and myself every part of his establishment, and explained fully his views in regard to the management of the insane. He has about eighty patients, and his terms, as will be seen, are about the same as those of Dr. Pinel. This must suffice for the public and private lunatic asylums of France. The subject is far too vast to be treated satisfactorily within the limits I have allotted myself; but there are other topics, at least as interesting, which demand our notice, and which will receive attention in future communications.

Selections.

The Turkish Bath in the Treatment of Insanity.—Dr. Power, resident physician of the Cork Lunatic Asylum, in a speech delivered on the occasion of the presentation of an address and testimonial to Dr. Bartes, on April 23, 1862, recommended in highly eulogistic terms a trial of the Turkish bath in the treatment of the insane. Speaking of his own experience of its effects he said: "Of course, out of more than five hundred patients in the Institution all were not expected to recover, nor were they all under treatment for the purpose; but the best way of showing the effects of the bath would be by statistics. It was only fair to conclude that if the proportion of cures had been greater since the introduction of the Turkish bath than before it, this bath must have had some influence in producing that desirable result. I see by my notes that for the year ending March, 1861, the cures were fifty-nine per cent.; but for the nine months ending 21st December last, during which period the

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bath has been in use, the percentage of cures was seventy-six—that is, seventy-four had been cured out of ninety-six entered. That was more than double the number of cures produced in any asylum in England. The patients, after the first few baths, all seemed to be much pleased with it, and were longing for the time to come when it was to be administered. Those who had suffered a relapse, after being sent out cured, showed no unwillingess to return to the Asylum; and even asked to be taken there at once, in order that they might get the bath, as they considered that nothing else would cure them. I have never seen any ill effects from the bath, except a little nausea and a slight fainting in a few instances, but after a bath or two those effects disappeared. Up to that time I have used it in more than nine hundred cases, and since March, 1861, thirty idiotic patients have been removed to a higher class, and rendered capable of enjoyment and of doing work about the establishment. I would recommend the introduction of the Turkish bath in all public Institutions, and I am firmly convinced that it has as beneficial an influence on the system as air and exercise."—*Medical Times and Gazette; Cincinnatti Lancet and Observer.*

Excision of Nerve in Neuralgia.—Dr. Markoe related to the New York Medical and Surgical Society (June 1, 1862), a case of a clinical patient on whom he operated for tic-douloureaux, by the removal of a portion of the inferior dental nerve. The man had suffered during a period of ten years, several attacks aunally. During the past two years his sufferings have been almost without cessation, and aggravated occasionally by very severe paroxysms. Section of the supraorbital nerve had produced little or no effect; the mental nerve had also been divided without relief. The pain had lately become localized in the mental and dental branches—occasionally radiating to upper branches. A removal of a portion of the dental nerve was advised. This operation was performed. The bone was laid bare and chiselled so as to expose the canal of the inferior dental nerve. One inch of the nerve was removed. It seemed congested and considerably hypertrophied, but microscopic examination did not detect any change of structure. The relief of the pain was almost immediate. He has had but one slight paroxysm of pain since the operation, six weeks ago, and is onw well enough to return to his occupation. Dr. Markoe thought the case remarkable for the rapid subsidence of the pain after the operation. The sensibility of the jaw is being gradually restored.

Dr. Parker, in connection with the discussion that followed, related a case where he removed an inch and a half of the posterior tibial nerve for neuralgia, affecting the ramifications of this nerve in the foot. The pain subsided for a time after the operations, but returned. The limb was then amputated. The specimen, which is now in the museum of the college of Physicians and Surgeons, shows that the continuity of the nerve was restored after the operation, either by the formation of nerve, or of substance capable of performing the function of nerve.—*Am. Med. Times; Cincinnatti Lancet and Observer.*

Paralysis from the Viper's Bite.—Dr. Guyon has sent an interesting communication on the effects of the sting of a horned viper (Cerastes Ægyptiacus),

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on an Arab on the oasis of Laghouat, 120 leagues south of Algiers. After a lapse of a month, during which the wound had healed, the patient was attacked with paralysis on the side opposite that where the sting had been inflicted. The author quotes several instances of this curious fact of paralysis ensuing after the bite of a reptile, and on the side opposite to that which had received the wound.—*Lancet; Pacific Med. and. Surg. Journ.*

Veratrum Viride in Cases of Acute Pulmonary Disease in Children.—Three cases of acute pulmonary disease in children, treated by Dr. Handfield Jones with veratrum viride, are reported in the London *Lancet.* Dr. Jones made the following clinical remarks:—

"The foregoing cases certainly corroborate the very favorable testimony of our American brethren as to the virtues of veratrum viride. I think it is well worthy of more extensive trial by the profession, and I am much inclined to hope that it will prove a substantial addition to our means of controlling inflammatory disease. As far as I can judge, it would have gone very hard with both cases (I. and II.), but for the veratrum viride. Case I. would, I believe, have died; and Case II. would at best have had a slow convalescence. This case was the first one in which I tried the drug, and I was quite prepared to find at the next visit a considerable extent of both lungs hepatized, which with any other remedy I varily believe would have happened. Certainly veratrum viride is no placebo, and will only find favor with the partizans of active interference. Those who have witnessed its action will, I think, find it hard to believe that acute disease is never curable by depressing measures; or that expectant practice is always advisable. It is evidently a remedy very much of the same kind as digitalis, which has been employed on the continent lately in the same way, and apparently with very good results. (*Vide* Hertz's paper in *Bull. de Thérap.*, February and March, 1862.) The *modus operandi* of both is clearly to depress the circulation, which digitalis at any rate seems to do by hyper-stimulation of the vaso-motor nerves. The cold face and hands and slow pulse of patients under its full action, are just such phenomena as result from stimulation of the vagi and sympathetic nerves."—*Boston Med. and Surg. Jour.*

Inoculation with Straw Fungi.—In several of our exchanges we find an article by Dr. Salisbury, of Newark, Ohio, containing an account of certain interesting experiments with the fungi of wheat straw. These experiments were instituted on account of previous observation having shown that a disease like measles was sometimes caused by the inhalation of the dust or vapor from these fungi, and the experiments themselves showed that inoculation of the human system with the spores or cells of wheat and rye straw fungi produced an eruption which seemed to protect the system against the contagion of genuine measles on subsequent exposure. In the October number of the *American Journal of the Medical Sciences*, Dr. Salisbury has another article on the subject, in which he gives a detail of further experiments, testing the prophylactic virtues of this novel inoculation. In the Ohio State Reform In-

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stitution, measles made its appearance about the 30th of May last, and all the boys, 175 in number, were exposed. On the 6th of June, Dr. S., in company with Dr. Boerstler, inoculated twenty-six healthy lads who had the disease, with mould from wheat and rye straw grown in Dr. S.'s office. Twelve boys were then recovering from the disease and six were sick in bed. In all the inoculated, the blotch made its appearance on or before the 9th, some having red lines radiating from the wound, and others not. In four eruption occurred, and several had headache, cough, coryza and lassitude, but all were well by the 24th, no effect having followed their exposure to the contagion of measles.

Dr. Salisbury states that he is preparing for the press an account of additional experiments connected with fermentation, decay, and fungoid development, which will be looked for with much interest by the profession.—*Amer. Drug. Cilcular and Chem. Gazette.*

The Indian Remedy for Variola.—Some time since we noticed the new remedy for variola in use among the Indians of Nova Scotia. We derived our information of its virtues from a notice of it in one of our foreign exchanges. In England it had attracted so much notice as that its virtues were to be thoroughly tested. At a recent meeting of the Medical Society of Nova Scotia, held at Halifax, the subject was discussed, and a resolution passed to the effect that there was not "any reliable data upon which to ground any opinion in favor of its value as a remedial agent."—*Med. and Surg. Reporter.*

Pharmacy.

ON THE CULTURE OF THE ELATERIUM PLANT.

By Robert P. Thomas, M. D.

(From Proceedings of the American Pharmaceutical Association.)

Can Elaterium be produced in the United States? and if so, is the indigenous product equal in power to the English drug?

A satisfactory determination of this question can only be made by a person having convenient access to a rural district, and sufficient leisure to watch the ripening of the fruits, and to collect them at the proper moment. Having been unable to give personal attention to the growth of the plants, the writer made an arangement with a relative in Germantown to undertake their culture, and procured an ounce of the seeds from England for the experiment. Small as this quantity seems, it would probably have answered the purpose had we been posessed of sufficient practical knowledge of the proper time for planting.

In August 1850, I plucked a single fruit from a vigorous plant in Dr. Wood's garden, and kept its seeds until the following May, when they were planted in garden soil in a warm situation. Vigorous plants sprang from these seeds, and furnished well-matured fruits in the latter part of August and the early part of September. Most of the fruits were collected for class exhibition. A

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few, however, dropped on the ground, and in the following year a larger crop appeared spontaneously,—thus showing that the seeds will survive our winter months. Misled by this observation as to the hardiness of the seeds I made the mistake of having those from England planted on the 25th of April, last year. This period proved premature, as not a single plant appeared. Cold wet weather followed and the seeds rotted in the ground. A few, that had been left, were planted on the first of June. These produced plants more or less vigorous, according to position and exposure. For instance, those upon high ground, and in situations exposed to the sun, were strong and vigorous; while others, upon a shady hill-side, were dwarfed and stunted. The fruits of the former were large and perfect, while the latter remained small and green. The quantity obtained was too little for any attempt at the preparation of Elaterium.

Arrangements were made for renewing the experiments the present year, but absence from home with the Army of the Potomac, at the proper period for planting, interfered with the design, and as a consequence, I am unable to answer the question referred to me by the Association.

Something, however, in the way of experience has been gained, which will prove useful to other observers, more favorably situated, in the prosecution of the inquiry. In England, according to the late Mr. Jacob Bell, the seeds are sown in March, and the seedlings planted in June. My best results were obtained by placing the seeds in pots towards the last of April, and setting out the plants in rich warm soil in the latter part of May, or beginning of June. When thus managed, the Momordica Elaterium thrives vigorously in our climate, and I do not entertain a doubt as to its yielding a large amount of active principle.—*Amer. Jour. of Pharmacy.*

ON THE RESINOID MATTER OF COLOCYNTH.

By John Faber.

(From the Proceedings of the American Pharmaceutical Association.)

Has the resinoid principle of Colocynth, extracted by alcohol, a reliable and constant therapeutic power, and may it be advantageously employed in medicine?

2 ½ lbs. Colocynth were deprived of the seeds and the pulp, weighing 10 ounces, treated with 90 per cent. alcohol, the result being a resinous product, weighing 1 ½ ounce. Follows specimen.

As the medicinal action could only be investigated by the physician, I distributed it among my acquaintances, put up for their convenience in ½, ¼ and 1 grain pills, but failed to get a report, the majority of them being afraid of the violent action, while some of them that had sufficient interest in the matter, and had the opportunity to try it in one of our public institutions, were prevented from doing so by assuming patriotic duties.

While I beg to have the subject continued to me for another year, I shall mention that the Prussian Dispensatory has an alcoholic extract of Colocynth

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made with an alcohol of 0·895 sp. gr., the effect of which is described as: Vis, vehementissime laxans. It acts sufficiently in ¼ grain doses, and in ½, 1 grain doses, most powerfully purging and vomiting.

The yield of this extract was 3½ ounces from 10 ounces of pulp, containing besides resin a good proportion of extractive matter.

From my own personal experience in dispensing this alcoholic extract, I am enabled to say that its effectiveness is not impaired by time or age. Follows specimen.—*Amer. Jour. of Pharmacy.*

ON A METHOD OF PREPARING CERTAIN PHARMACEUTICAL EXTRACTS.

By M. Pierlot.

M. Pierlot's process is especially valuable in preparing extracts of aromatic plants, their useful principles being necessarily dissipated during the preparation of extracts by the ordinary method. It might pass for an ingenious application of M. Millon's researches on the subject of vegetable perfumes if the author, who does not quote M. Millon, did not appear to be unaware of his work.

Into a displacement apparatus, a fresh plant such as absinthe, tanzy, milfoil, camomile, primrose root, valerian root, &c., is introduced, and covered with ether, which gradually expels the water of vegetation, and retains the volatile aromatic principles of the plant. The displaced water occupies the lower part of the funnel, holding in solution the extractive matter, the albumen, and several saline principles. In proportion as it is drawn off, the water is replaced by fresh quantities of ether, and as soon as the ether ceases to displace water the plant is put under the press, and treated again by ether.

The different quantities of ether which have been used are now to be mixed, and distilled in a water bath at 30°. This distillation produces ether, with hardly any impregnation and a residuary (formed of an essential oil, of a bluish color, and a greenish-yellow, resinous, fatty matter) containing all the perfume of the plant.

The displaced water contains the extractive matter and the albumen. By shaking up with a little alcoholised ether, the coagulated albumen rises to the surface, and is separated by filtration. The extractive matter is obtained by evaporation.

The union of these two residuums gives an odorous extract, representing very exactly all the active elements of the plant. Pharmaceutists who attach an exaggerated amount of importance to the appearance of their medicaments can object to it only on account of its forming with water-troubled solutions.

M. Pierlot says that all the fresh flowers and roots he has treated in this way have yielded almost identical quantities of extract,—about ten per cent., two parts of aromatic principles, and eight parts of extractive. He adds:—"it is useless to enlarge on the therapeutical and pharmaceutical advantages of this method of preparing extracts of aromatic plants. I will only remark that, from a pharmaceutical point of view, the process forms the commence-

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ment of analysis,—that is to say, the estimation of these medicaments. The word 'commencement' is a necessary correction; for now-a-days it is not sufficient in analysing a plant to determine the amount of extract it will yield."—*Bulletin de Theraputique*, vol. lxi. p. 409; *Am. Drug. Circular and Chem. Gazette.*

ON THE SOUCHON PROCESS FOR FILTERING WATER.

This methed of filtering consists in passing water through woolen clippings which have previously undergone a treatment for the purpose of destroying and carrying away the vegitable matters which have served to dye them, and to coat them with a layer of tannate of iron, which renders it imputrescible. This treatment is performed in the following manner:—

The wool is washed and immersed for five or six hours in a bath made with—

Water of *Javelle*	1000 grammes
Carbonate of soda	250 "
Water	25 to 30 litres.

Raise the temperature to 50° or 60°, and then wash. The wool is then immersed for five hours in a boiling bath composed of

Alum	250 grammes
Cream of tartar	30 "
Water	12 litres.

On coming out of this bath the wool is exposed to the air for some hours. It is then boiled for two hours with the following infusion of gall-nuts:—

Gall-nuts	200 grammes
Boiling water	10 litres

After this galling it is plunged into a boiling bath of acetate of iron. The gall and ferruginous bath are then repeated a second time, the wool being allowed to remain in the bath for some hours; dry it without washing, and then plunge it for an hour in the following bath of carbonate of soda—

Carbonate of soda	250 grammes
Water	20 litres

Wash the wool until the water passes away clear and tasteless. This kind of filter is applied to several public fountains in Paris.—*Rapport du Conseil d' Hygiène et de Salubrité; Ibid.*

LAPIS MIRACULOSIS.

℞	Sulphate of copper,	3 parts.
	" " iron	6 "
	Verdigris,	1 "
	Alum	1 "
	Sal-ammoniac,	½ "

Fuse together.

It is used for ulcers only; it differs from the *Lapis divinus* that is used for collyria.—*Ibid.*

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PURIFICATION OF SULPHATE OF COPPER FROM IRON.

Agitate a solution of the salt with recently precipitated subcarbonate of copper. On allowing the liquid to rest, all the iron will be separated as a carbonate and the filtered solution contains no trace of iron.—*Journ. de Chim. Med.; Amer. Journal of Pharmacy.*

ON A MODE OF DISTINGUISHING TARTARIC AND CITRIC ACIDS.

Digest the suspected acid with hydrated sesquioxide of iron in a test-tube; afterwards carry it slowly to ebullition, allow the excess of oxide to deposite, and decant the clear supernatant liquid. Evaporate this solution to a syrupy consistence; if the acid is citric, the liquid is limpid and a beautiful red; if, to the contrary, there is tartaric acid present, the liquid becomes cloudy and deposits a pulverulent combination of tartaric acid and sesquioxide of iron.

This reaction is sensible in detecting 1 per cent. of tartaric acid.—*Zeitschrift fur Chem. und Pharm. and Journ. de Pharm; Amer. Journ. of Pharmacy.*

PREPARATION OF MERCURIAL OINTMENT.

Eugene Renoult recommends the following method (*Jour. de Chim. Méd.*) for preparing quickly this ointment:—

℞ Lard and mercury, of each.....16 ounces,
Ether..... 1 ounce.

Into a morter of marble or iron put the mercury with one half the lard, and half the ether, and triturate quickly. Under the influence of cold produced by the vaporization of ether, the mercury is divided into minute droplets and is promptly absorbed. The other part of the ether and lard are then added, and the trituration continued until the mercury is completely extinguished. The ointment is left in contact with the air for five or six hours, with the precaution to agitate it from time to time so as to favor the vaporization of the last traces of the ether,—when it is finished.—*Amc. Journr. of Pharmacy.*

ON THE PREPARATION OF CAUSTIC SODA.

By M. Woehler.

This process consists simply in calcining nitrate of soda with peroxide of manganese. No chameleon is formed, as might be supposed, since the nitrate decomposes long before the mixture can reach the temperature necessary for the production of manganic acid.—*Chem. News, from Annalen der Chemie and Pharmacie; Amer. Journ. of Pharmacy.*

POMADE AU PETROLE.

℞ Pommade Nervine,.....30 parts.
Petroleum,.....6 "

This we consider as probably the most elegant mode of exhibiting petroleum.—*Am. Drug. Circular and Chem. Gazette.*

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Editorial.

To the Patrons of the Journal.—The present number completes the fourth volume of the Journal of Materia Medica. The chief editor and principal manager of the Journal is, at present, absent from home, as he has unavoidably been, off and on, for the greater portion of the past year. Previous, however, to his departure the last time, he instructed the *printer* (on the occasion of issuing the present number,) to present his compliments to the subscribers, and all others interested in the Journal,—to make due apology for all its delinquencies and short-comings during the year,—and also to say, that, owing to the unsettled state of the country, the high price of printing paper, and the consequently greatly increased expense of publishing, as well as the falling off of many subscribers who have joined the army, he deems it expedient to *discontinue the Journal* for the present. The printer, therefore, begs leave thus briefly to discharge that commission.

Furthermore: if subscribers will but take into consideration the fact, that, at present prices, a sufficient quantity of white paper to supply the Journal for a year would cost nearly as much, if not quite, as the sum total received for subscriptions (allowing that sum to be as large as usual), they will not wonder at its discontinuance. They will rather think, with the writer, that that fact is enough; for, varily, there would be nothing left wherewithal to *pay the printer.*

There are some few subscribers on our books who have paid in their subscriptions for another year. To these, we will forward either of the volumes already published, or refund the money,—as they may choose. They will please make a note of it, and inform us which they prefer, as soon as convenient. "*Sic transit,*" etc.

Artificial Limbs for Soldiers.—The Commission appointed by the Surgeon General to devise a method of expending the fund appropriated by Congress for the purchase of wooden limbs for soldiers, recently held a meeting in this city. It consisted of the following eminent surgeons: Drs. Van Buren, Gross, J. M. Warren, and Satterlee. After examining the subject, they resolved to allow the patient fifty dollars for a lower, and twenty-five dollars for an upper extremity. The following artificial limb manufacturers were selected to supply limbs, viz.: Dr. E. D. Hudson, New York; Dr. Douglass Bly and Mr. Selpho, New York; Mr. Douglass, Springfield, Mass.; and Mr. Palmer, Philadelphia. The patient is at liberty to apply to either of these manufacturers, but if the price which they demand for a given limb exceeds the amount allowed, the patient, or his friends, must make up the deficiency. This arrangement is very judicious, and will lead to a proper use of the fund. Every maimed soldier will be able to obtain an artificial limb of such quality as he chooses.—*American Med. Times.*

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