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ARTICLE VIII.

MESSRS. EDITORS:—In yielding to the solicitations of partial young friends, by sending you the accompanying lecture for publication, I do so more from a desire to gratify them than from any belief in the originality of the remarks thus hastily extemporised. In order to elucidate the subject, I have appended translations of such portions of Hahnemann's works as seemed appropriate.

I am yours, very truly,

L. A. DUGAS.

Augusta, 1st March, 1860.

A Clinical Lecture delivered at the Augusta Hospital upon the subject of Homeopathy. By L. A. DUGAS, M. D., &c.
Written out by request.

GENTLEMEN:—As some of your number have requested me to give my opinion of Homeopathy, and as I believe it a matter of importance that you be aided in forming a correct appreciation of this, as well as of other irregular systems of practice, I will omit any further remarks upon the cases we have just seen, and proceed, as briefly as I can, to gratify the desire expressed.

As the business of the physician is pre-eminently the search after truth, he should early learn to appropriate it

with avidity wherever he may find it, whether in the depths of ignorance or in the halls of learning, in the vagaries of the enthusiast, or the logic of the philosopher, in hasty conclusions or mature observation. He should not be deterred from a careful examination of a theory, a system, or a practice, merely because of its supposed antagonism to generally received opinion, or because it may be found in the hands of charlatanism to be made subservient to base purposes. He should, on the contrary, calmly and dispassionately look into any and every scheme alleged to present new facts and consequently new truths in the treatment of disease. He should never flag in his efforts to discover the truth, wherever it may lie, and the very difficulties inherent to the subject of therapeutics should lead him to be extremely cautious lest he be unconsciously swerved by pre-conceived notions.

The subject of Homeopathy is, of course, not new to me; indeed, it is one to which my attention was at one time specially directed, inasmuch as the doctrines of Hahnemann were exciting much interest in Europe, and especially in Paris, during my first sojourn in that city some thirty years ago. The term *Homeopathy* is intended to convey in one word the gist of the doctrine of "*Similia Similibus Curantur*," or that "like cures like." Now there is nothing new in the idea that certain morbid conditions may be advantageously treated with remedial agents capable of inducing a similar state. There is nothing novel I say, however much *I* may be opposed to it, in the prescription of a laxative for the relief of diarrhœa, spirits of turpentine for burns, lunar caustic and other irritants for inflammatory affections. Many physicians occasionally practice upon this principle. But if you attempt to generalize it, you see at once that it is out of the question. You have a patient with the tooth-ache, another with the gout, a third with pleurisy, and so on. Now I would ask, what articles do we possess that can induce either of these affections, or anything like them?

The truth of the matter is, however, that although Hah-

nemann applied this epithet to his system, it does not indicate the real, the great peculiarity of his practice. We find this in the doctrine that the potency of a remedy is not, as has been heretofore supposed, proportionate to the magnitude of the dose, but, on the contrary, is increased by its diminution—so that the millionth part of a grain of Peruvian Bark is infinitely more potent than an ounce! And that articles almost inert in large doses, grow so rapidly in activity, by lessening the quantity, as to become positively dangerous when administered in doses so infinitesimal as to defy calculation!*

Again, in establishing the rules by which remedies should be prepared for Homeopathic usefulness, Hahnemann dwells at great length upon the vast importance of cleanliness and the careful avoidance by every means of the perturbing influence of extraneous agents, such as solar light, heat, gaseous emanations, odors, metallic contact, &c., &c. The greatest care should be taken to secure correct weights; to

*“ Thus, gold, silver, platina, charcoal, are inert when taken in their natural state. The most impressible person may take several grains of gold or silver leaf, or of charcoal, without appreciable effect. But let one grain of gold be triturated one hour with one hundred grains of the sugar of milk, and a very active medicinal agent will be produced. Let one grain of this be now taken and again triturated with 100 grains of sugar of milk for a second hour, and thus repeat the operation until one grain of the last preparation shall contain only a quadrillionth of a grain of gold, and you will have a remedy in which the medicinal properties of the gold will be so highly developed that if a single grain be kept in a closed vial, and inhaled a few moments by one so deeply affected with melancholy as to be on the point of committing suicide, it will be sufficient to effect such a change that in one hour the unhappy man will be entirely relieved of his evil spirit, (*mauvais demon*.) and be restored to happiness.”

* * * * *

“ Medicinal substances are not dead in the ordinary acceptation of this word. They are, on the contrary, essentially dynamic, and this force can by mere homeopathic friction, be indefinitely increased. This is so true that we should be careful not to increase in this way the activity of agents too much. One drop of *Drosera*, of the thirtieth degree of dilution, each dilution having been shaken twenty times, will endanger the life of a child to whom it may be given for the whooping cough, whereas, if each dilution has been shaken only twice, a single grain of sugar, the size of a poppy seed, if moistened with it, will be sufficient to secure a prompt and ready cure of the disease.

“ Peruvian bark is one of the most active vegetable agents if used in diseases to which it is adapted, when the patient is violently attacked. I find that one single drop of the tincture so diluted that it shall contain only a quadrillionth of a grain, is a dose often too strong, but always sufficient to effect all that can be accomplished with the bark in such cases, and that it is very rare that the dose will have to be repeated in order to cure the case.”

Translated from the “*Exposition de la Doctrine Medicale Homeopathique, ou Organon de l'art de Guérir; par S. Hahnemann.*” Paris 1832, p. 337, and p. 395.

use mortars and pestles, as well as spatulas, of a particular kind; to have the water distilled in a retort which has never been used for any other purpose; to get alcohol, for dilution, which has been obtained from special substances; to use none other than the sugar of milk for attenuating powders, &c., &c.*

If you have not yet read Hahnemann's *Organon*, gentle-

Rules for Preparing Remedies.

* "The utmost cleanliness and care to avoid the influence of foreign bodies are necessary in the preparation of homeopathic remedies. This should, therefore, be done where the temperature is not above that of ordinary dwellings, where the solar rays cannot reach directly the substances, and where the atmosphere is not charged with emanations; such for example as those of sulphurous acid, hydrogen, sulphuric acid, carbonic acid, and of odoriferous medicinal agents, especially of musc, valerian, camphor, spirit of hartshorn, castoreum, assaetida, &c., for if the medicinal dilutions receive the smallest quantity of them, their properties will be changed and become uncertain. For the same reason it is that homeopathic remedies must not be prepared in vessels that have ever contained substances of strong odor, without having been most conscientiously cleansed. After being abundantly washed, such vessels should be subjected to a high degree of heat, for some length of time."—Op. Cit., p. 426.

* * * * *

"Take one grain (of chalk or charcoal for example) and add to it one-third of one hundred grains of pulverized sugar of milk in a porcelain mortar; mix them with a spatula of bone or horn, and rub them together with a certain degree of force for six minutes: the mass should then be forced by the pestle against the bottom of the mortar for four minutes, so as to make it homogeneous, and rubbed again four minutes with an equal degree of force, without the addition of any other matter. This being done, devote four more minutes to rubbing it upward and then downward with the pestle, and then place it upon the second third of the sugar of milk and mix them with the spatula; rub them now with uniform force for six minutes, press the mass four minutes, and rub it again with force six minutes more. After devoting four more minutes to compression, add the last third of the sugar of milk, which carefully mix with a spatula, and conclude the operation by forcible friction for six minutes, pressure for four minutes, and friction again for six minutes.

The powder thus prepared must be kept in a closed vial and labelled 100, indicating that the remedy is of the hundredth potency.

In order to elevate the substance to 10,000, or to the ten thousandth potency, take one grain of the powder marked 100, put it in a mortar with one-third of one hundred grains of sugar of milk recently pulverized; mix with a spatula, and proceed as above stated, taking care that each third shall be rubbed with force for six minutes, pressed four minutes, and again rubbed six minutes before adding the second, and also before the addition of the third portions of sugar of milk. All this being done, put the powder in a well stopped vial and label it 10,000, indicating that the medicinal substance is diluted to the ten thousandth degree.

By treating in this way one grain of this new powder, it may be carried to 1, that is to say to the millionth potency.

Each dilution then requires six compressions of six minutes each, and six rubbings of four minutes each, and will therefore consume upwards of an hour.

All remedial agents having been thus carried to the millionth potency in the state of powder, are then ready for solution in water or in alcohol. The first solution cannot be made in pure alcohol, because this will not dissolve sugar of

men, do so at once. It will amply repay you for your trouble. I read it, a long time ago, most carefully and with as unbiased a mind as I could bring to the search of truth; and I must say, that it seemed to me to be the most complete rhapsody I ever read, save, perhaps, the "life and narrative of Thompson," the renowned author of Thompsonianism. But Thompson was a poor illiterate man, who was deluded by an imaginary inspiration from Heaven, as many have been upon other topics. I believe, therefore, that he was honest in his convictions. Hahnemann, on the contrary, was a very learned man, well versed in the history of medicine, and evidently intimately acquainted with human nature. We cannot for a moment suppose that a man of his extensive acquirements, and a physician, too, of experience, could believe palpable absurdities in matters purely scientific. And yet they abound in the *Organon*. It is, as I have already said, a perfect tissue of rhapsodies, as glaring as those of Baron Munchausen. Now, if he could not believe them he must have had, as well as the author of Munchausen, some motive for inditing them. His knowledge of human nature taught him that men are more apt to notice and to believe mysteries than the naked truth. Like many physicians who have passed the age of enthusiastic and unlimited confidence in the *materia medica*, in all cases of illness, he doubtless arrived at the conclusion that mankind was suffering very much from excessive and useless medication. But if he had at that time proclaimed this belief, he would have been simply ridiculed and soon forgot-

milk. It should, therefore, be made with diluted alcohol, which is prepared of uniform strength by uniting 100 drops of distilled water and 100 drops of pure alcohol, by means of ten shakes at arms length, both materials being at the temperature of cellars.

One hundred drops of diluted alcohol thus prepared should be poured upon one grain of the powder of the millionth potency, the vial stopped, turned gently until the powder is dissolved, and shaken twice at arms length. The vial must then be labelled 1001. One drop of this will now be allowed to fall upon 99 or 100 drops of pure alcohol, the vial closed and shaken twice, and we shall have a remedy to be labelled 10,0001. And by thus repeating these processes, the potency may be carried to the highest degree, only two shakes being given at each new dilution."—*Ibid*, p. 440, et seq.

"Sugar of milk and alcohol are the best vehicles of dilution, inasmuch as neither of them possesses any medicinal properties."—p. 432.

ten. Such, however, could not be the fate of a highly wrought system of mysticism, advocated with the apparent zeal of an enthusiast and with the ability of a philosopher. The scheme was well devised, well sustained, and secured belief by the boldness of its revelations. That there are some truisms in the *Organon*, I do not deny. In this the author displays his tact, for mysticism is always strengthened by being shown to accord with known truths.

Hahnemannism is then, in reality, but a well devised plan to carry out most effectually the, so called, expectant treatment of disease. It is not, as is supposed by many, designed for the purpose of treating all cases with drops of nothing; for Hahnemann insists that none shall practice his method but thorough-bred physicians. Now what does this mean, if not that no one shall practice this system who is not sufficiently versed in the knowledge of legitimate medicine to distinguish between the cases that require no physic and those that do? This injunction of previous instruction is unfortunately too often neglected.

I am afraid that you may think me uncharitable in thus attributing to Hahnemann the perpetration of so deliberate a fraud. But there are some who would regard this in the light of what has been termed a *pious* fraud—the means being justified by the end. I am not the apologist of such a doctrine—I detest it! Nothing is valuable in science but the naked truth, and the French school of medicine has accomplished more effectually, by a straight forward course, the reformation aimed at by Hahnemann, than he has been able to do by the most subtle duplicity. That school was engaged, at the time Hahnemann inaugurated his new doctrine, with the important study of the natural history of diseases, unmodified by the perturbing influence of remedial agents. Diseases, were, under the supervision of able men, allowed to run their course naturally and without interference, and when their natural history was thus established, it became an easy matter to determine the relative value of remedial agents. Well, what has been the result of this study? It has taught us that a large number of cases of

illness will terminate favorably without medicine—that some will prove fatal notwithstanding all the resources of art, and that others will rarely terminate favorably without the aid of remedial agents. It is therefore the business of the physician to discriminate between these cases, and to treat them accordingly. Hippocrates tells us somewhere, that a physician must determine, before he prescribes, whether the case would end favorably if left to itself, and that if he thinks it will he must let it alone, lest by interfering with the operations of nature he render incurable that which was not so before. But, you may say, this requires consummate skill. It unquestionably does, and none but those who possess it have any right to take charge of the lives of their neighbors, at least without the firm determination to resort to perturbing means only when certain of their efficacy, and in all cases to give the patient what lawyers term “the benefit of doubt,” by non-interference. Dr. Chapman is said to have remarked that “any fool can give physic, but it takes a good physician to determine when not to give it.”

But, gentlemen, physiology teaches us that the state of the system is very much under the influence of the mind, and that in sickness we may accomplish important results by operating upon the imagination. The hopes engendered by confidence in the ability of the adviser, or in the efficacy of the prescription are often powerful aids in the vanquishment of disease. As the stamina and recuperative energies of the system are buoyed up by cheerful hope, they are correspondingly depressed by apprehension and a want of confidence. Most persons have great faith in the *materia medica*, and believe that there must be a remedy for all diseases. As lovers of truth it is our duty to enlighten society upon this subject, but until this be accomplished we have to treat things as they are, and as no honest physician would give physic merely to gratify the prejudices of the patient, so none would withhold from him the advantages of hope based upon prescription. In many instances if you make no prescription, the patient will conclude either that

his case is hopeless, that you are ignorant of what he requires, or that you are indifferent to what seems to him very important. The result then is that he loses confidence in you and desponds. Is it not right and proper then, under such circumstances, while you honestly omit the use of agents of hurtful activity, to prescribe something that will gratify the imagination?—and what could more effectually do this than the billionth part of a grain of chalk or any other agent similarly attenuated, if your patient were a believer in Homeopathy?

A case just occurs to my mind which fully illustrates this position. It dates far back, but made a strong impression upon me at the time. In 1832 I was called to see a gentleman somewhat advanced in life, who told me that he had been sick about a week, and that although he had great respect for his attending physician, who was an elderly practitioner of large experience, he had just dismissed him because he found himself getting worse and worse daily. He added that he had sent for me because he thought, that being a young physician, I might perhaps have learnt some new and more effectual method of treating diseases. Upon a careful examination of the case, I found that he had been attacked with influenza—had taken an emetic and a cathartic, followed by calomel and Dover's powders, and that he was then under the use of a mixture of sweet spirits of nitre and antimonial wine, repeated at short intervals. His stomach and bowels were consequently in a very irritable condition, and he complained that he could take no nourishment whatever and had not done so for several days. I need not add that he was very much enfeebled, and altogether in a very bad way for one of his age. My own conviction was that his condition had been aggravated by too much physic, and that if he would "throw this to the dogs" and take suitable nourishment, he would most certainly recuperate. But I was just commencing my professional career; I had evidently been called in for the special purpose of doing *something more* and not *less* than had been done. My patient never dreamed that his physic was injuri-

ous, but was only dissatisfied with its inefficiency. Had I told him that he needed nothing but food and repose, he would have dismissed me at once upon the ground that I did not know what to do for him, and he would have called in some one else—some one who did not know what physic suited his case. Determined, however, to treat him as I thought best in his interest, I told him that I thought he had taken as much of the antimonial mixture as was necessary—that he must discontinue it, and that I would send him some medicine with written instructions, which I desired him to observe *to the letter* as he was very ill, and I had great confidence in the efficacy of the prescription if scrupulously followed. I accordingly went home and filled an ounce vial with water and added to it 20 drops of the compound tincture of lavender. I then rubbed up a tea-spoonful of flour with a few grains of rhubarb and divided it as equally as possible into 32 powders. These “drops and powders,” being decidedly medicinal both in color and odor, were sent with the following directions: “Take *regularly* every two hours 20 drops of the mixture in a tea-spoonful of cold water, and each intermediate hour you will take one of the powders in a little syrup. The drops are designed to allay the cough and induce sleep—the powders to quiet the stomach and bowels and promote appetite. You must, therefore, not be disturbed when asleep—not even to take the medicine; and you must take from time to time, as your inclination may direct, such articles of light nourishment as you may fancy.”

The next day I found my patient much better. He declared that the medicine had acted like a charm—that it was the only thing he had taken since he was sick that seemed to reach the disease—that the very first powder he took quieted his nausea, and the second relieved the griping of his bowels, and that he then went into a fine sleep which lasted several hours—that he took some nourishment last evening and relished an egg and a cup of tea very much this morning.” I suggested that as he was so much better he might prolong the intervals between the doses,

but he insisted upon making no change and I yielded. He therefore continued the same prescription two more days, when, finding him fully convalescent I gave him some general directions and dismissed the case.

The crying evil of Hahnemann's works is that they inculcate error upon every page, and put an estoppel upon truth. He is not satisfied with a wholesome operation upon the imagination of the ignorant patient; but wishes to intrall the physician himself in the misty mazes of his absurdities, by having him also to believe in the remedial potency of inert doses. But the true physician acts understandingly when he administers a placebo, and is not led to an erroneous interpretation of its *modus operandi*. With a clear understanding of the natural history of diseases, and a correct appreciation of the effects of remedial agents, he will not trust to the quadrillionth of a grain of Peruvian bark in a case which requires 15 or 20 grains of quinine to save life; nor will he resort to perturbing influences when none are necessary. If the patient is sufficiently intelligent to appreciate the truth, it will not be withheld from him; but if his ignorance or mental peculiarities are such as to make this dangerous, the proceedings should be modified for his benefit, and the truth revealed to him when he is restored to health. In this way we may do much to enlighten the people, and to overcome the pernicious effects of the doctrines of former times, which converted the pocket and too often the stomach itself into an apothecary shop. I must confess that of all the forms of charlatanism, I prefer Homeopathy, because I believe it better that ignorance should deal in harmless materials than in those that may do mischief. It is the very thing for "family practice," for it is unquestionably safer to take nothing than to take physic in the way it is ordinarily done by the uninformed. Your business and duty is to prepare yourselves, by diligent study and patient observation, to demonstrate by your success at the bedside the superiority of science over the vagaries of Hahnemannism, Thompsonianism, Hydropathy, &c. An ignorant practitioner is no better than a Homeopath, a Thomp-

sonian, or a Hydropath—but neither of these can compare with or ever stand long in the way of enlightened physicians.

ARTICLE IX.

Double Amputation for Gangrene of the Feet. By DESAUSSURE
FORD, M. D., of Augusta, Ga.

The 4th of January last, was called to see a case of frost-bite, in a female negro child, three years old, who had been exposed to a severe cold three weeks previous.

The ankle joint of the left foot was destroyed by the inflammation, merely the flexor or extensor tendons holding the foot to the leg. The right foot, in a day or two, separated in the same manner. Healthy granulations nearly covered the lower ends of the tibia and fibula. The whole of the left hand was much implicated, but, by using stimulating applications, only the fingers were lost, the thumb remaining intact. My experience would suggest, in treating diseases resulting from the effects of heat or cold, alcohol and turpentine, in proportions forming the domestic “burning fluid.”

Notwithstanding the age of the patient, debilitated condition, and the natural amputation—healthy granulations having already commenced at the ends of the bones—I performed, before the class in the Medical College of Georgia, double amputation, an inch below the tuberosity of the tibia, the patient successfully put under the influence of chloroform.

At first sight, it seems a barbarous and too heroic use of the knife, but in view of the surrounding circumstances of the little unfortunate, the probable impossibility of having artificial limbs, I thought she would be better able to walk on her knees with short, than long, protruding stumps.

The patient is perfectly restored, having been attacked, however, ten days after the operation, with pneumonia of the right lung, which did not transcend the congestive state.

ARTICLE X.

Death from obstruction of a small portion of the Alimentary Canal in a new-born Infant. By JOHN M. BURNS, M. D., of Erastus, Banks Co., Ga. [With remarks by Editors of S. M. and S. Journal.]

I attended a labor on June 12th, 1859, in which the woman gave birth to a well grown female child, weighing ten pounds, apparently in good health. On the thirteenth, I was called to see the child, and found it vomiting at irregular intervals, a matter which appeared to me to be mucus mixed with meconium. It had slight tympanitis—there was no evacuation from the bowels by the anus—its pulse, respiration and condition of the skin appeared normal. It had voided its urine sufficiently freely.

One drachm of castor oil was administered, but immediately rejected from the stomach. The oil was repeated several times, but with similar results. I then used injections with small doses of chalk and mercury given by the mouth, but neither of these means effected the desired object of producing an alvine evacuation—a small quantity of meconium was brought away from the lower part of the bowels, but its discharge was attended by no apparent relief to the patient.

On the fourteenth, the tympanitis was much greater—still no evacuation—still continues to vomit more or less meconium at irregular intervals—the breathing somewhat accelerated. The castor oil was again prescribed, and the injection continued, but with no better effect than heretofore. A very small quantity of meconium would follow the injections sometimes, but still there was no relief whatever.

June 15th. Condition of patient not materially altered from that of the preceding day. One grain of calomel every three hours was now prescribed—this was continued till four grains were given, but without avail. On the 16th Dr. Brawner was called in consultation, but it was not thought worth while to change the treatment. The child

died on the seventeenth, having lived six days in the condition above described.

The post-mortem examination which was made on the 18th of June, by Dr. Brawner and myself, revealed the following facts bearing upon the case: Abdomen very much distended and tympanitic. On opening the abdomen, the bowels were found to be considerably inflated with gas. There was much peritoneal redness. There was an obstruction found in the *duodenum* immediately below the entrance of the Ductus Communis Choledochus. Here *the intestine was consolidated into a tendinous cord or link, for the space of one inch and a half*, and reduced in diameter to less than half an inch. There was no opening or canal through this portion whatever, and the tissues grated under the knife as in the cutting of cartilage, when the incision was made.

[The above obstruction, without doubt, existed prior to the birth of the child, and belonged to the class of those congenital deformities by no means uncommon in the lower portion of the alimentary canal, but of which we are not familiar with any instance as high up as the duodenum. The present case is rendered more valuable by the accurate account which has been preserved of the symptoms during the life of the patient, and for the minute details of the post-mortem examination. The obstruction, it will be observed, was *below* the entrance of the ductus communis choledochus, and therefore the matters ejected from the mouth must have been the secretions from the upper part of the duodenum, and from the mucus surface of the stomach, colored by the admixture with bile from the common duct of the liver. The child was well grown, weighing ten pounds, and the revelations of the case would seem to indicate that an open passage throughout the entire length of the alimentary canal was therefore not necessary to the normal growth and full development of the being during foetal life. When we reflect that during foetal life, the being is nourished by a kind of interstitial digestion or absorption, the pabulum being supplied from the fluids of the matter through the cord, and that intestinal or external

digestion is almost wholly in abeyance, it is easily understood how the obstruction may have existed up to the time of birth, without interfering with the nutrition of the foetus. But very soon after birth, when the function of the intestines became so important, as subsidiary to the independent existence of the child, the evil results of the obstruction began to be apparent, finally, and necessarily, ending in its death. As to the cause of such an obstruction, it is certainly difficult even to surmise; it is scarcely possible that *intussusception* could have occurred at this point finally terminating in consolidation of the tube, for, unlike the mesentric portion of the intestinal canal, the duodenum is so disposed in relation to its peritoneal covering that but little play or motion is afforded it, which would be favorable to the occurrence of invagination. It is usually firmly fixed and seldom has any mesentery in any portion of its extent.

Whatever may be our reflections upon the nature or the cause of the deformity, we are compelled to regard the case as one of much value in its relations to foetal nutrition, (although many of these points are perhaps already sufficiently well established) and the part performed by the intestinal canal during intra-uterine life.] H. F. C.

On Cerebral Symptoms Independent of Cerebral Disease. Delivered at the Hospital for Sick Children, Dec. 3, 1859, by CHARLES WEST, M. D., Physician to the Hospital for Sick Children. Importance of the Subject, and Difficulties which Attend it—Three Classes of Cases in which the Brain may be Disturbed without Disease: in Fevers, in Inflammation of the Thoracic Viscera, in Various Disorders of the Digestive Organs.—Rules for Discriminating in each between the Signs of Sympathetic Disorders of the Brain, and the Symptoms of its Real Disease.

GENTLEMEN :—Of all the inquiries which, in private practice, the parents of a sick child will put to you, there is none that will be made so often or so eagerly as this, “Do you think his brain is affected?” The answer which you give to this question will at once convey a sense of unspeakable relief, or will produce a feeling of blank hopefulness; either,

perhaps, excessive, but either most natural. Without doubt the importance of a correct reply is very great, for your prognosis and your line of treatment are dependent on it, and an error, even though corrected in twenty-four hours, may be irreparable. I think, then, that the time will not be misspent which we devote to-day to an examination of the different circumstances wherein we are most likely to meet with the Symptoms of Cerebral Disorder independent of real Cerebral Disease. Now you may encounter such symptoms in two different conditions: either in the course of acute affections simulating active disease of the brain, or in the course of chronic ailments, where there may seem to be reason for apprehending the advance of slow disorganisation; and each class of cases demands a separate consideration.

Before examining either class of cases in detail, I would, however, remind you that in the child, as in the adult, the brain is disturbed more or less in the course of every acute affection of the general system; and further, that in proportion to the youth of the child there will be an apparent sameness in the characters of such disturbance, and a consequently increased difficulty in determining the cause whereon it depends. Thus, for instance, whether one of the exanthemata is about to come on, or influenza, or inflammation of the lungs; or whether the illness is a mere febrile attack consequent on dentition, there will in all these circumstances alike be a hot skin, and a frequent pulse, a loss of cheerfulness, a heavy head, a disposition to drowsiness, and yet a state of unrest; symptoms, in short, which are just the same with those that in the infant would attend the early stage of actual disease of the brain.

But while I refer to this fact as one never to be lost sight of in the endeavor to discover the true import of the cerebral disturbance which accompanies almost every form of acute illness in early life, my special object to-day is to point out to you some of the circumstances wherein, in infancy or early childhood, a correct diagnosis is peculiarly difficult.

I propose to notice very briefly—

1st. The cerebral symptoms that usher in the attack, or accompany the early stages of fevers.

2d. Those which at the onset of acute inflammations of the thoracic viscera, sometimes throw the evidences of the real disease into the shade; and,

3d. Those dependent on some disorder of the abdominal viscera, which though not always itself of an acute charac-

ter, yet gives rise to sudden disturbance of the nervous system, and to symptoms that simulate active cerebral disease. Such are sometimes the consequences of unsuitable food of diarrhœa, of colic, and of intestinal worms.

Afterwards, if time allows, I purpose

4th. To make a few observations on the more chronic ailments, in which cerebral symptoms are likely to be observed, and their import is apt to be misapprehended.

Now with reference to cases of the *first* class; namely, to those in which cerebral symptoms usher in the attack, or accompany the early stage of fevers, I may observe, and the remark holds good in other cases also, that in proportion to the suddenness of the onset, and the violence of the character of such symptoms, is the probability of their depending on real disease of the brain so much the smaller. A severe attack of convulsions is rarely an early symptom—is almost never the first symptom of real acute disease of the brain. Its occurrence, therefore, always raises a presumption that its cause is to be sought in some source of irritation external to that organ; that, how much soever the immediate urgency of the case may require remedies addressed to the brain, the ultimate dangers of the disease will be found to depend on some other cause, to arise from mischief seated elsewhere than in that part which at first seemed to be the most suffering.

The early stage of the eruptive fevers sometimes affords a very remarkable illustration of the amount of disorder of the nervous system, which may precede or accompany the full outbreak of the rash. During the first day of the eruption of measles, for instance, one or two attacks of convulsion sometimes occur, though they usually pass away without being followed by protracted coma, or by any abiding signs of cerebral disorder. In these cases the previous existence of the morbillous catarrh, often even the presence of faintly-marked stigmata of the rash, the general heat of skin more intense upon the trunk than even about the head, will usually preserve from error, and you may speak with confidence as to the probably speedy disappearance of the cerebral symptoms. Far more serious, however, are the signs of cerebral disturbance by which small pox and scarlatina are occasionally ushered in; the transition from apparent health to violent convulsions being sudden, and apparently causeless, the fits themselves most formidable, and the coma by which they are succeeded very profound. Such was the case of a little girl, two years old, who until

the day before that on which I saw her had never had an hour's illness. She had eaten a hearty dinner, and though she vomited soon afterwards did not seem otherwise indisposed, and slept well in the night. Immediately on waking in the morning, however, she had a fit, during which she was insensible, much convulsed; and insensibility, with occasional convulsions, and great heat of skin, continued for the ensuing twenty-four hours. Depletion, both general and local, the latter twice repeated, was followed, at the end of twelve hours more, by considerable diminution of the convulsive movements; and forty hours after the first fit the child fell asleep, and dozed quietly for a few hours. She awoke sensible, and continued so. On my visit in the morning I found her quiet and sensible, without any sign of convulsion; her face was very pale; her head, before so hot, was now quite cool; her pulse had sunk in frequency, and had lost its fulness. An eruption of a papular character had appeared on the hands, arms, inside of the thighs, and slightly on the face. This eruption was the small pox, and the disease ran its course without an unfavorable symptom.

The comparative rarity of small pox may be some excuse for my not having been prepared for the possibility of the convulsions depending in this case on the cause to which they were really due; but it is well to bear in mind that in every instance where cerebral symptoms come on without obvious reason in early life, enquiry should be made as to the date of the previous vaccination, and the arm should be examined for its evidence in the cicatrices left by its performance. A similarly stormy onset, however, is sometimes observed in cases of scarlet fever; and then it usually preludes an attack of a malignant kind, characterised by speedy loss of power and tending to an early death. This occurrence, indeed, never very common, is most rare when scarlet fever is merely sporadic, but in epidemics of the disease it happens more frequently, and this even although the general characters of the disease are of a mild—not at all of a malignant—type.

“In the autumn of 1831, and during the early part of 1832,” says Dr. Von Ammon (*a*), “scarlatina prevailed epidemically at Dresden. The cases which at first presented themselves to my notice were, for the most part, mild in character, and ran a favorable course; but, at the same

(*a*) Bes chreibung einer Scharlach-epideminz a Dresden, in Amalekten fur Kinderkr. Vol. III. Heft 11, p. 43.

time, I met with some instances where death took place very rapidly and under peculiar symptoms of cerebral disturbance in children who neither during life nor after death, showed the slightest trace of scarlatinoid eruption. At first I felt in doubt as to the cause and nature of the rapidly fatal head affections; for I did not any how connect them with scarlet fever, while the disease differed from inflammation of the brain in the extreme rapidity of its onset, in the fact that notwithstanding the intensity of the head-ache it was unaccompanied either by nausea or vomiting, that the bowels were not constipated, and that the pulse beat with such frequency that it was almost impossible to count it, while the attitude of the patient was not at all such as is usually assumed by any one suffering from acute cerebral inflammation."

Dr. Von Ammon then goes on to say how a post-mortem examination of one of these cases led him to the suspicion which afterwards became a certainty in his mind, that these were really instances of scarlatina; that the impression of the poisoned blood upon the brain and spinal cord destroyed life before time had elapsed sufficient to allow of the ordinary manifestations of the disease. The possibility that the clue to the understanding of symptoms of formidable cerebral disorder is to be found in the approach of one of the eruptive fevers, enforces the necessity for learning in every case the history of a child's previous ailments, and renders it even more imperatively your duty to do so at a time when scarlatina is epidemically prevalent. Rapid too as is sometimes the advance of inflammation of the brain, its progress is commonly far slower than that of the cerebral symptoms which accompany the onset of the fever, while almost invariably some characteristic or other of the mere local inflammation would be absent, some anomaly show itself, such as excited the suspicion of the German physician, and ought to awaken yours.

But besides the instances just referred to, in which the temporary violence of the cerebral symptoms suggests the idea that active inflammation of the brain is present, there are others of less rarity where, though the feeling of anxiety as to the real nature of the disease is less urgent, it is yet of longer duration. Such are the cases in which, during the early stage of typhoid fever, the symptoms of cerebral disturbance so preponderate that for some days a doubt may be entertained as to whether the fever is sympathetic with disease of the brain, or the brain is disordered as a conse-

quence of the fever. The question, in short, is between tubercular hydrocephalus and typhoid fever. Now something may be gathered from the age of the child, at least towards raising a presumption one way or the other, for the older the child is, the more likely is the disorder to be typhoid fever, the younger it is the more likely to be hydrocephalus; and I strongly recommend you in doubtful cases to put the issue between these two definite diseases, and not to indulge your indolence and put to sleep doubts which you feel unable to solve by talking to yourself or to your patient's friends of gastric fever, worm fever, and so on—terms to which no definite import is attached, either by yourselves or by others. There is not time to pass in review, minutely, all the diagnostic symptoms which mark typhoid fever, and serve, in spite even of much cerebral disturbance, to distinguish it from hydrocephalus. It may, however, suffice to remind you that vomiting is generally absent, is never obstinate, nor succeeded by long-continued nausea; that the bowels are often relaxed; never obstinately constipated, and that the evacuations are light colored, fecal, but usually watery. Further, the abdomen is full, usually tender, and flatus is always to be felt in the intestines; the tongue is not often much coated, it is red at the tip and edges, and early shows a tendency to become dry. The skin is very hot, the heat is pungent, the pulse is frequent, and continues so throughout, but is never irregular nor intermittent. Even the very cerebral symptoms have their characteristic features; for the early occurrence of delirium, which is so general in typhoid fever, is another point wherein it differs from hydrocephalus, in which much pain of the head, much drowsiness, a marked change of temper and disposition, yet coexist with a perfect intelligence.

“Surely,” you may say, “these differences are marked enough; to dwell on them is superfluous, nay, wearisome: the help we want is in real diagnostic difficulties, not in cases so obvious, whose right interpretation is so easy.”

Believe me, gentlemen, nine-tenths of the errors of diagnosis are made in easy cases, in cases whose features are sufficiently marked for recognition, if the observation had been trained to notice them, or the mind been disciplined to the inquiry in every instance: Why do I believe the disease to be this, why not that, or the other? The power of intuition and the habit of guessing are two very different things, though sometimes mistaken for each other. The former is now and then the reward of years of patient

observation; humility and diligence are its parents. The latter is engendered between indolence and self-conceit; he who takes up with it, whatever be his abilities, forfeits all chance of ever attaining the other; he adds not to his knowledge from being right, he gathers no lesson from being wrong; for him experience yields no fruit, age brings to him no wisdom."

There is a *second* class of cases in which the predominance of symptoms of cerebral disturbance sometimes masks the real nature of the disease, and such cases are met with among the acute inflammation of the thoracic viscera. Risk of being led astray would indeed be almost entirely avoided if you made it an invariable rule in all the acute ailments of early life to regard your examination as incomplete until after you had made a careful auscultation. The symptoms of disturbance of respiration are indeed often too marked to be overlooked; the cough, the pain in the chest, and the hurried breathing, render mistake impossible; but it now and then happens at the commencement of pleurisy, and in pneumonia, especially of the upper lobes, that the nervous system sympathises so deeply as to draw away the attention from those symptoms which, though obvious enough to him who seeks for them, do not stand out so prominently as to attract the first hasty glance. Pneumonia and pleurisy, especially the latter, occasionally set in with a convulsion; but you will, I trust, remember the caution which I have already given as to the sudden violence of cerebral symptoms, indicating that the brain is disturbed by some eccentric cause rather than by mischief seated in that organ itself. Pleurisy, more particularly when affecting the right side, is sometimes ushered in by vomiting, and this vomiting seems all the more suspicious if it has just preceded or just followed, an attack of convulsions. It is accompanied by fever and by intense headache; the child cries aloud or screams much in its sleep, and if it is old enough for the symptom to be observed, delirium is not unlikely to be present. The cough may be but slight, or altogether absent, and even the pain not considerable, and it is then quite possible that the disturbed breathing may be put down to that sympathetic disorder of respiration, to which the name of "cerebral breathing" has been applied. Need I say that it is much harder to correct a diagnostic error into which one has fallen than by care to avoid it in the first instance. If the case is one of pneumonia affecting the upper lobes, severe headache, drowsiness, great heat of head, though found,

if carefully observed, not to be greater than of the surface elsewhere, all serve to mislead. Delirium, too, is very often present if the child is old enough for that symptom to manifest itself; and the mind of the attendant fluctuates in such cases between the ideas of cerebral congestion, of hydrocephalus and of typhoid fever; one impression preponderating at one part of the day, another at a different one; but the true view of the case not presenting itself to the mind at all. In the case of pleurisy, even though the mistake is discovered late, the child will probably survive, and the distended side, the adaptation of posture, the subsidence of the fever, and the disappearance of the head symptoms are tolerably sure to put the doctor, though tardily, on the right track. In pneumonia the error is even more serious, for the disease is more formidable, and the longer continuance of cerebral disturbance is likely to keep up the mistake. In its later stages, too, the convulsion and the coma which sometimes come on as the results of the imperfect depuration of the blood, perpetuate the misapprehension, which, perhaps, a post-mortem examination alone brings to light.

Now, without going into minute detail, for which there is no leisure, I may observe that in these cases you will find something always wanting of those symptoms which characterise real cerebral disease. Perhaps there has been a convulsion; but it was not followed by coma, nor by paralysis of either side. Vomiting has occurred, but it has soon subsided. The head is hot, but yet not hotter than the rest of the surface, and it is unaccompanied by violent pulsations of the carotids. The light may be unpleasant, but it is not shunned with that intense sensitiveness to its presence which closes the eyelids even in the darkened chamber. Again, though the breathing is sometimes hurried in cases of cerebral disease, yet here the hurry is constant; if the case is one of pneumonia it is extreme, and between the hurried breathing and the rapid pulse a constant proportion is observed, while, though the cough may be but slight, some cough is almost surely present. Such, and such-like, are the criterions by which, if you test the symptoms in these doubtful cases, you will run but small risk of not coming to a right conclusion.

Nearly forty years ago a French Physician (*b*) wrote an

(b) "*Recherches relatives a la Predominance des Organes Digestifs des Enfants sur le Cerveau.*" 8vo. Paris, 1826.

essay, the object of which was to illustrate what he termed the predominance of the digestive organs over the brain in childhood, and he appended to it the details of forty-eight cases in corroboration of his opinions. Now, although like all other books written to develop one idea, this is somewhat one-sided in its views, and, perhaps, a little overcharged in its statements, yet the main point is correct—namely, that

The *third* class of cases in which symptoms of cerebral disease are provoked by disorders of the digestive organs is very numerous and very important.

A slight acquaintance even with the practice of Medicine will have familiarised you with various symptoms of disturbance of the nervous system which derangements of the digestive organs and their appendages bring with them. Such are the unquiet sleep, the night-terrors, the grinding of the teeth, the sleeping with half-closed eyelids, the thumbs drawn more or less into the palm, which one often observes in infancy and early childhood, and some of which are seldom altogether absent during denition, or when changes are first made in the diet of infants. But there are besides two distinct classes of symptoms to which disorders of the digestive organs, when severe, may give occasion—namely, convulsions on the one hand, and on the other, that form of cerebral disturbance characterised by mingled exhaustion and irritation, to which the name of the hydrocephaloid disease, or spurious hydrocephalus, has been given.

Convulsions from this cause are generally the result of unsuitable food, or of an over-full meal in infancy or early childhood; though other sources of irritation, as that of worms, or even of a calculus in the kidney, may produce them. Those which depend on indigestible food, are sometimes so severe as to threaten life, or even actually to destroy it. They nearly proved fatal in the case of a little boy, five years old, previously healthy, who in July 9, 1846, dined off some boiled salmon, of which the rest of the family partook more heartily than he, without any ill effects. At ten o'clock on the following morning, having slept well during the night, he was suddenly seized by a violent convulsion, in which his whole surface became exceedingly livid, and his lips of a deep purple hue. His respiration was greatly affected, he seemed as if he could not get air enough into his chest to keep him alive, and he appeared every moment as if he would be suffocated; while his pulse was feeble and frequent, and the temperature of his body low. Under the influence of the cold douche to his head,

his breathing became less laborious, his lips regained much of their natural florid color, the convulsions greatly diminished, and the child began to make some half-conscious movements. It was now possible to give him an emetic, which caused free vomiting twice, and the rejection of some of the undigested salmon. The child was next placed in a hot mustard bath; while in it the convulsions completely ceased, after having lasted three hours and a-half. He was now put in bed, where he slept quietly for four hours, and awoke quite well.

Now that which took place here you may observe not very rarely, and with symptoms of equal severity, in early infancy, when perhaps the error in diet has been so trivial that you can scarcely realise the possibility of its producing such formidable results. The fact, however, that in any given instance the convulsions depend on such a cause, may usually be gathered, partly from the history, which in early life is all the more important from the patient's inability to speak for himself, but still more from our observation of their characters. They are apt to be violent, accompanied with much spasm of the extremities, clenched hands, or the thumb drawn forcibly into the palm, and the great toe widely separated from the other toes. They are associated with spasm of the larynx, which often remains closed till suffocation seems impending, and with much trouble of the respiratory movements; in other words, with evidence of all the spinal system of nerves being in a state of great irritation. Almost always, too, the abdomen in such cases is distended, often extremely tympanitic, and there is frequent escape of flatus from the intestines. These peculiarities, if borne in mind, will often give you a clue to the meaning of a violent and apparently causeless convulsive attack. They indicate the source of the disturbance to be eccentric, and thus both guide your treatment, and influence your prognosis, enabling you to hold out the hope that if the child do but surmount its present danger, recovery will be complete as well as speedy.

I referred to a second class of symptoms dependent on disorder of the digestive organs; symptoms less formidable in appearance, perhaps, but more delusive, by which irritation and exhaustion together stimulate the effects of inflammatory disease of the brain. It is in diarrhœa, and especially in relapses of diarrhœa, that these two conditions are associated in the greatest degree, and that the risk of error is perhaps, most considerable.

One case in illustration of it must suffice, for time draws short.

A little girl was seized with diarrhœa on August 8, which at first was severe, but soon yielded to treatment, and she was again convalescent; when, on the 15th, vomiting and purging returned with great violence, and were attended with much febrile disturbance. On the following day she was still worse in all respects, but was not brought to me again until the 17th. She then looked exceedingly ill; her face was sallow, but with a flush on each cheek, and her eyes were deeply sunk. She lay in a half-dozing state, with her eyelids half closed, and the eyeballs turned upwards, so that nothing but the sclerotica was visible; but from this condition she awoke frequently and suddenly in a state of great alarm, and looking as if she were about to have a fit of convulsions. Her skin was hot, and very dry; her pulse very frequent, but not strong; and there was some subsultus of the tendons of the wrist. The abdomen was rather tympanitic; the tongue red, coated with white mucus; the thirst was great; the vomiting very frequent, and the bowels acted two or three times in an hour, the evacuations having the appearance of dirty water.

The persistence of the diarrhœa, and the great frequency of the action of the bowels, coupled with the fact that I had observed the case from the commencement, would have rendered error inexcusable. But such cases may come under our notice only when the evidence of cerebral disturbance is already very striking, and when, perhaps, the diarrhœa is no longer very urgent—perhaps may for a few hours have altogether ceased; in such circumstances error is very possible, and its consequences may be very disastrous. If you regard the cerebral symptoms as the signs of active disease, and withhold the Dover's powder, or the opiate enema, that might have checked the diarrhœa, and soothed the irritability, while you apply cold lotions to the head, and give the child nothing more nutritious than barley-water in small quantities, because the irritability of the stomach, which results from weakness, seems to you the indication of disease of the brain,—the restlessness will before long alternate with coma, and the child will die either comatose, or in convulsions.

This is not indeed the only form which this spurious hydrocephalus assumes, although it is that in which the signs of irritation so mask those of exhaustion as to render the risk of mistake most serious; while the time during which

the error can be rectified is in these cases very brief. In a larger number of instances this condition comes on much more slowly, since it results from the gradual influence of imperfect nutrition; and in these circumstances the signs of irritation of the nervous system which characterise its early stages are less marked, though not on that account less deceptive. In the infant brought up by hand, or imperfectly nourished at the breast, the first stage sometimes continues for weeks, attracting perhaps little notice; giving rise, indeed, to a vague suspicion that something is wrong, but yet this suspicion so indefinite that neither the parent nor the doctor pushes the inquiry far enough to decide what that something is; or, possibly, commencing denition bears the blame of the whole symptoms. I would have you, too, bear in mind, that in these cases denition may really have much to do with the production of the symptoms, though not exactly in the way which at first suggests itself. The insufficient or unsuitable food heightens the irritability of the nervous system, and renders it preternaturally sensitive to the disturbance which teething seldom fails to bring with it. This disturbance acts, though more slowly, just as does that which accompanies diarrhœa; it exhausts the nervous power by all the manifestations of reaction which it produces, as the continued galvanic current wears out for a time the contractility of the muscles. The symptoms do not betoken real disease of the brain, though they closely resemble those which it occasions; so closely indeed, that to read their import aright, you sometimes need go back for weeks, or even for months, to gather the child's early history, and to learn how it has been fed, and how it has thriven from its birth. You will find, too, both in the past and in the present, intermingled with the general signs of cerebral disturbance, the evidence also of the spinal irritation such as I have already referred to; and they should always lead you to suspect that the brain is disturbed in sympathy with some cause external to it. Irritability, restlessness, feverishness, a flushed face, a frequent pulse, undue sensitiveness of the surface, moaning, starting in sleep, all point to disorder of the nervous system, but they do not specially point to disease of the brain; their real meaning must be gathered from a consideration of the whole condition of the patient. That condition will be found to vary very much; the face will not be always flushed, nor the head always hot, nor the fontanelle always tense of pulsating. Vomiting may occur, but it will be occasional; the

bowels will be relaxed rather than constipated; the abdomen not shrunk, but distended with flatus; a state which should always turn your attention from the brain itself to some source of irritation external to it; since, as the distinguished German physician, Goelis has remarked, a collapsed state of the abdomen, and the absence of flatus from the intestines, are signs almost pathognomonic of hydrocephalus. Often, too, the carpopedal contractions and the laryngeal spasm are present, or have existed to warn you as to the real nature of the case; while the pulse, though feeble and frequent, retains its regularity of force and rhythm, and thus differs remarkably from the irregular, intermittent, or unequal beats which are among the earliest and least fallacious signs of real cerebral disease. If misinterpreted, and consequently wrongly treated, the stage of exhaustion comes on by degrees, and with it a stealthy stupor. The flush no more returns to the surface, the extremities grow cold, the pulse becomes feebler, the pupils permanently dilated, the respiration sighing, the voice husky, deglutition difficult; symptoms which, if the earlier stage was misinterpreted, will probably be regarded as the signs of the last stage of hydrocephalus; though the depressed fontanelle, the cool head, the pulse still frequent in spite of its feebleness, the abdomen still containing flatus, the bowels still loose, will tell at once a different tale to some other Practitioner, who, with no larger experience than your own, yet with a mind unbiassed by a foregone conclusion, comes to the case, and at once reads its meaning aright.

I had wished to have said something about cases of a chronic character in which symptoms occur that give rise to unfounded suspicion of disease of the brain, but there is to-day no time to do more than enumerate some of them. Such are the groundless suspicions which parents often entertain, and which the doctor himself is not always as quick as he might be to negative, in cases of essential paralysis in infancy and childhood. Such are the fears excited by the temporary though often long-continued dulling of the faculties, which often follows fever or some exhausting illness. Such are the apprehensions which fits of waywardness or altered temper excite; such, too, on the other hand, is the dread which the excitability of a child whose faculties are just awaking to the wonders of the world around him, sometimes occasions his relatives; and such, lastly is the morbid anxiety with which the severe neuralgic headache of childhood is watched by persons who can scarcely be

pursued but that suffering so intense, and the return of which Medical care so often fails so prevent, must needs depend on a cause as serious as it obviously is difficult of removal.

You see, gentlemen, my catalogue is a long one, and I think not unimportant. I must hope at some future time to pass it in review, as I have to-day tried to do with the other class of cases of a more acute kind. Some of the details may, I fear, have seemed tedious; but my excuse is, that the errors against which I have tried to warn you are the same as in past years I have myself committed. I have not stated imaginary dangers, I have tried to warn you against such as have proved themselves to me very real ones, and to make you to the best of my powers the inheritors of my own experience.

Median Lithotomy. By THOMAS P. TEALE, of Leeds.

This operation has been performed by me twelve times, with the result of eleven recoveries, and one death. Of these operations seven were performed on adults, there being six recoveries, and one death. I have also seen the operation performed by several of my friends in Leeds (a). As median lithotomy is now exciting much interest in the profession, and is on its trial, I propose to enter more fully upon this part of my subject.

From the acknowledged fatality of lateral lithotomy in adults, it is not to be wondered at that Surgeons should feel

(a) The following is a statement of the total number of cases in which median lithotomy has been performed in Leeds up to the present date, Dec. 1, 1859:

Cases.	Recoveries.	Deaths.
1 By Mr. Smith.....	1	0
12 By Mr. Thoms P. Teale.....	11	1
4 By Mr. Samuel Hey	3	1
4 By Mr. C. G. Wheelhouse.....	4	0
1 By Mr. T. Pridgin Teale, jun.....	0	1
1 By Mr. Seaton.....	1	0
23	20	3

Of these operations fifteen were performed on adults, resulting in thirteen recoveries and two deaths. In Mr. T. Pridgin Teale's case the patient was sixty-eight years of age, and had a very large prostate. The stone weighed three ounces and one drachm, and measured in its smallest circumference five inches and a half. There was about the same degree of resistance, chiefly at the external parts, to the extraction of the stone as is usually met with in removing a stone of this large size by the lateral operation. The patient proceeded remarkably well, and was considered nearly convalescent on the tenth day, after which he was seized with two severe attacks of erysipelas, under which he sunk on the fifteenth day. No examination after death was allowed.

a restlessness respecting it, and should cast about for some other proceeding which might be fraught with less danger. Hence the rise of lithotrity, which when judiciously practiced will, I believe, present in a majority of cases far more favorable results than lateral lithotomy; but still there remains a formidable minority of cases to which lithotrity is inapplicable. Hence, also, the revival of median lithotomy, which seems not unlikely to supercede both lateral lithotomy and lithotrity.

It gives me much pleasure to have this opportunity of expressing my acknowledgments to Mr. Allarton, for the good service he has rendered the Profession by reviving and improving Mariano's median operation; and I strongly recommend any surgeon, intending to adopt this operation, to study carefully the details of it described in his book.

The peculiar parts of this operation are an incision in the median line of the perinæum involving the whole extent of the membranous part of the urethra, and subsequent dilatation of the prostate.

A curved grooved staff, passed into the bladder, is hooked up against the pubes, and held steadily by an assistant. The operator introduces his left fore-finger into the rectum of the patient, so as to feel the apex of the prostate, and by pressure upwards to steady the staff within it. A strong, narrow-bladed scalpel or bistoury is plunged into the perinæum, about half an inch in front of the anus in adults, somewhat nearer the anus in children, and is thrust onwards until it strikes the groove of the staff immediately in front of the prostate. It is then carried forwards, in contact with the groove of the staff, so as to divide in its course the whole membranous part of the urethra, and the parts external to it in the median line, to such an extent as may be deemed sufficient to allow the extraction of the stone. The left fore-finger is now withdrawn from the rectum, and is passed deep into the incision to ascertain whether the membranous portion of the urethra has been completely divided, or any part of it, or the triangular ligament, offers resistance to the passage of the finger to the prostatic urethra. Should these structures not have been fairly divided, the knife is again inserted into the groove of the staff, and carried along it from above downwards.

In my early operations I aimed at the completion of the incision by one stroke of the knife, and in several instances accomplished it; but of late I have been less careful on this point, and have even preferred using the knife a second

time, in order to secure the perfect division of the membranous part of the urethra. I have adopted this practice on account of the difficulty I encountered in an operation on a child, in passing the finger into the prostate. After the usual incision, considerable resistance to the passage of the finger was felt, and I thought it desirable to pass a beaked knife along the staff, thereby making a lateral incision of the prostate, and converting the operation into the lateral one.

On reflecting upon this case, I feel no doubt that the difficulty arose from the imperfect division of the membranous part of the urethra and the fibrous structure which it traverses, and that it would have been removed by running the knife down the groove of the staff. As the same difficulty has also been felt by others, it is desirable, when operating upon children, that the surgeon should be provided with a beaked guide for the finger, which would more certainly and more easily secure its entrance into the prostate. An instrument of this description was shown me by Mr. Bowman, which he had requested Messrs. Weiss to prepare for him, and which appeared to me well calculated to answer the purpose intended. Such an instrument would, in operations on children, be a more certain guide for the finger than the bulbed probe used by Mr. Allarton.

In children, the left fore-finger of the operator is the best dilator, and generally the only one necessary. In adults, the question of dilatation demands more serious attention, as the finger alone will rarely be found sufficient, and some further mechanical aid will be required.

The instrument which I have until recently employed has been Weiss's three-branched dilator for the female urethra. The branches of this instrument, which expand by means of a screw, are slender, smooth, tapering somewhat towards their free extremity, at which part they measure, when closed, one-fourth of an inch in diameter, and at their base half an inch. They are four inches in length. With this instrument I have operated six times in adults; and in the majority of these cases found it to answer perfectly, but in some it appeared to be rather too slender and too short, although my object was attained by it. Anticipating the inconvenience that might arise from the use of this instrument in a subject extremely fat, or of large size, or with hypertrophied prostate, I consulted with Messrs. Weiss as to the best mode of remedying its defects. It was thought by us that two instruments, in extreme cases, should be

used; one precisely similar to the old one, but with somewhat stronger blades, five inches in length, and a second instrument with broader blades to carry on the dilatation commenced by the first. These instruments were used, immediately after I received them, by Mr. Seaton, of Leeds, and I had the satisfaction of observing that they performed their duty perfectly.

In this operation, as in the lateral, it is important to use forceps of rather large size relatively to the subject, as the stone is more easily seized by a large than by a small forceps. The blades, being smooth and broad, greatly protect the parts traversed from the rough surface of the stone.

Concluding Remarks.—It is an interesting question—By what process the prostate, in median lithotomy, is widened so as to allow of the extraction of a stone through it? Is it by dilatation, or by laceration, or by both? At present, I presume, this question cannot be answered. Extensive observation, after death, of fatal cases can alone solve it. Experiments on the prostate in the dead body would prove little, as there is, I doubt not, a wide difference in the dilatability, and in the proneness to laceration, of the living and of the dead prostate. It is, however, probable that in the living body the process which suffices for the extraction of a stone of moderate size is one of simple dilatation; and that, in the case of a large stone, it is attended with some solution of continuity both of the mucous membrane and of the proper structure of the prostate. But, in this respect, it will only be analogous to that which must take place, from the forcible stretching of these parts, when a large stone is moved by lateral lithotomy; and moreover, it is unattended with the casualties incident to a deep thrust of the knife.

As to the relative fatality of the two operations, which alone can determine their respective merits, it is too early to speak. Prolonged and varied experience of the median is required. But, when the lateral operation in adults is known to be attended with a sad fatality, it is the clear duty of surgeons to try fairly other methods which afford a reasonable hope of better results. If the median should hereafter prove to be less fatal than the lateral, it must of necessity supercede it. If, on the contrary, the results of the median should be less favorable, it will become our bounden duty to relinquish the median operation.

As far as my own experience goes, the result of six recoveries in seven operations on the adult is favorable to the

further testing of its merits. Difficulties may and will arise; but we must ascertain whether such difficulties are or are not insuperable.

It has been supposed that the median operation is applicable only to cases of small stones. My own impression is, that the largest stones, admitting of being extracted through the perinaeum, may be removed by the median quite as readily as by the lateral operation, provided that the resistance afforded by tense perineal fibres be relieved by gently touching them with the knife. In Case No. 2 of Table 4 there were two stones, conjointly resembling in form an egg cut in two. These were seized and extracted as one stone, and were removed with perfect ease. They conjointly weighed $1\frac{1}{2}$ ounce, and measured four and a quarter inches in their smallest circumference. The stone which I saw my son extract weighed $3\frac{1}{8}$ ounces, and measured five and a half inches in its smallest circumference. This stone, as I have already stated in a note, was removed with about the same degree of extracting force as is usually required in the lateral mode.

It is stated by some surgeons that the operation is nearly bloodless. I have seen cases in which scarcely any blood was lost; but in most instances the bleeding at the time of operation was about the same as in lateral lithotomy. The subsequent draining, however, was much less. But, if bleeding of a more formidable character should occur after the median operation, we may feel assured that it does not proceed from large or from deep-seated vessels; and, moreover, the bleeding vessels may be rendered accessible to ligature or compression, by the aid of the three-branched dilator. In some cases I have thought that the stone was not seized so readily in the median as in the lateral operation; but on this point I would reserve an opinion until I have had further experience.

In conclusion, I will take a brief survey of the changes that have occurred in my own views and practice, as to the treatment of stone in adult males, since my first operation in 1826. These successive phases may be thus arranged:—

1. Lateral lithotomy in all cases.
2. Lateral lithotomy the rule, lithotritry the exception.
3. Lithotritry the rule, lateral lithotomy the exception.
4. Median lithotomy the rule, lithotritry the exception.

In the early part of my practice lateral lithotomy was alone thought of. As soon, however, as lithotritry received its last great improvement from the introduction of the screw-

lithotrite, I adopted the operation; first in select cases where the stone was small: afterwards it was extended to stones of larger size, until it became, in my estimation, the operation to be generally preferred, leaving, however, a large number of exceptional cases, in which the stone was great, or the prostate much enlarged, or the bladder highly irritable, for lateral lithotomy. The next change was caused by the revival of median lithotomy in an improved form; and from the limited experience I have yet had of this operation, I feel a strong conviction that it will be the one which I shall generally adopt, leaving lithotripsy to the few exceptional cases suitable for it, in which the patient has an insuperable objection to the knife.

It may be asked, Why was lateral lithotomy superseded in part by lithotripsy? In reply, it may be said that the acknowledged fatality of the former operation induced surgeons to test the value of any other proposal which held out a better hope of success. In my own practice, thirty-five operations of lateral lithotomy in adults were attended with thirteen deaths, or one death in two and two-thirds of the cases. By the introduction of lithotripsy, the result is improved by the addition of fifteen cases, with only one death, giving a result from lateral lithotomy and lithotripsy conjointly, of fifty operations in adults, with fourteen deaths, or one death in three and a half cases.

If the question were now asked, Why I would resort to any other operation when lithotripsy has furnished me with a result of fifteen cases with only one death, I would reply, that in each case so treated, the patient has generally had to submit to several operations or "sittings," and that any one of these sittings might have been, as some of them were, followed by symptoms severe enough to cause serious anxiety.

In the hope of diminishing the risks to which, from the plurality of operations, the patients subjected to lithotripsy are exposed, and of obtaining better results than lateral lithotomy affords, I have been desirous of giving a fair trial to the median operation.

I have now operated on adults seven times, three of these operations being performed on the same individual. The result of these has been one death in seven operations. If such a proportion of success can be maintained, it would be a great gain, as far as my own experience goes, upon lateral lithotomy, or even upon lateral lithotomy and lithotripsy conjoined. I have great expectation that such will be the

result; for, if we except the fatal case already described, presenting extraordinary difficulties, which might probably be overcome hereafter, the remaining six recovered so favorably that it was difficult to believe the patients had been subjected to a grave operation. They formed a marked contrast with the adult patients who had undergone lateral lithotomy, and who subsequently recovered.

I have no hesitation in extending the median operation to children, although lateral lithotomy in children has presented me a result of eighteen operations without a single death. Yet a considerable number of these patients were seriously ill, and caused me much greater anxiety than has been felt for the few young subjects whom I have seen under the median operation.

Practical Clinical Remarks on Diseases of the Bursa Patellæ. By JOHN ERICHSEN, Esq., F.R.C.S., Surgeon to the Hospital.

GENTLEMEN :—The exposed situation of the bursæ patellæ, covered as they are only by the integumental structures and fascia lata, and their liability to pressure and irritation in kneeling, render them in all respects more prone to take on diseased action than any other similar structure in the human body, and the morbid conditions which they present may be looked upon as typical to a great extent of the disease of the bursæ generally. Now, in considering the various affections to which these bursæ are liable, we may divide them into two classes, viz:—1st, Inflammatory affections; and 2d, Enlargements, of a fluid or of a solid character.

1st. Let us commence with the consideration of the inflammatory affections of the bursa patellæ. This bursa is frequently the seat of simple inflammation. Undue pressure in kneeling upon a hard, irregular, and cold surface, such as stone, is likely to excite inflammation; hence its frequency in housemaids, whose occupation obliges them to kneel a great deal on floors and stone steps, and hence, also, the common title of "housemaid's knee," given to this and many other affections of this bursa. But these diseases, although frequent amongst, are not limited to, housemaids; for they occur in females following other occupations, and in men as well as in women. In simple inflammation, however occasioned, the bursa becomes rather suddenly swollen, tense, red and hot, with some fluctuation deeply under the integuments. The swelling, heat, fluctuation, and redness, often of a dusky color,

all situated in front of the patella, point out the nature of the affection.

The treatment of this inflammation is simple enough. Leeches, followed by evaporating lotions, and keeping the patient at rest, are the means to be employed. Under this treatment, the disease will frequently undergo resolution in the course of a few days. So many cases, of this simple inflammation of the bursa patellæ occur in the hospital in the course of the year, that I need not refer to any one particular instance.

2d. In many, and perhaps the majority of cases, however, the inflamed bursa eventually suppurates. Now, suppuration of the bursa patellæ is a matter of great consequence, because the accumulation of pus, being of large size, and tending to diffuse itself around the knee joint, is liable to be mistaken for abscess in that articulation. Suppuration of the bursa is, indeed, followed by a widely diffused abscess, that speedily gets beyond the limit of the anterior part of the knee. This is owing to the inflamed and suppurating bursa, instead of bursting externally, giving way under the integuments. If not, it will point, and the pus discharge itself externally in the usual manner; but in many cases it gives way subcutaneously, and its contents diffuse themselves somewhat widely around the joint.

How are we to distinguish such a collection of pus as this from suppuration within the knee joint itself? In suppuration of the bursa patellæ, the history of the case will show that the abscess commenced by a superficial swelling and inflammation in front of the knee, which, after a time, extended laterally, enveloping the joint, the fluid gravitating on either side, but more especially on the outer one, nearly as bar, perhaps, as the ham-strings. There will have been none of the signs indicative of acute arthritis accompanying the formation of this large abscess; no starting of the limb, no laxity or pain in moving the articulation, no grating of the articular ends, and little if any constitutional disturbance, which is always a marked feature of the rapid disorganization of a large articulation. The movements of flexion and extension of the joint are free up to a certain point, where they are checked by the mechanical obstacle of the purulent accumulations. But perhaps the most important diagnostic sign is the relation of the abscess to the patella. In a suppurating bursa, the patella is invisible, being covered by the fluctuating swelling; in effusion, whether synovial or purulent, into the joint, the patella is above, floating upon the fluid.

Having thus made the diagnosis, the treatment of this condition becomes simple enough. A free incision should be

made into the anterior part of the bursa, so as to let out the pus mixed with synovial fluid; and if there be any burrowing of matter, as there almost invariably is, counter-openings must be made in proper dependent situations. I may mention the following case, as illustrating well the points to which I have just adverted:—

Mary T—, aged twenty-four, married, was admitted into this hospital on April 16th, 1858. About a fortnight before her admission, she noticed some degree of swelling on the front of the knee, but as it did not cause any inconvenience, she took no notice of it until about three days afterwards, when it began to inflame and to become painful. Hot fomentations were applied without affording her any relief, and she continued to get worse up to the time of her admission, when she had, at first sight, all the appearance of disease of the knee-joint. A large abscess covered the front and sides of the knee, but the patient could move the joint without giving herself any great pain, and the fluctuation was more distinct above the patella than in any other part. A free incision made into the abscess let out eight ounces of pus. The part was well poulticed, and on April 24th the woman was so far recovered as to be able to walk about, and was made an out patient.

Here, then, is an ordinary case of abscess of the bursa patellæ, gravitating to the sides of the joint, and requiring free incision and poulticing.

3d. Sometimes, but very rarely, abscess of the bursa patellæ, will go on to disease of the patella itself. Caries of this bone secondary to suppuration of the bursa is, so far as my experience goes, exceedingly rare. I have only seen one case of the kind—that of a woman who was in the hospital under my care, about three years ago. She was admitted into the hospital on the 30th of April, 1856, and then had several fistulous openings on the fore part of the knee-joint, through which the probe led down to a rough and carious patella. On inquiry we ascertained that she had had inflammation on the bursa patellæ—"housemaid's knee"—which had run on to suppuration. The present condition had resulted from that suppuration. The joint itself was unaffected, there was no pain in it, and its movements were perfectly free. I laid open the sinuses, and finding the anterior surface of the patella soft and carious, removed with the gouge the diseased bone to which they led. About two or three weeks after this, the joint became suddenly swollen, evidently filled with pus, and the seat of acute pain. In consequence of the severity of the symptoms, it became necessary to remove the limb above

the knee. After amputation, it was found that the morbid action had extended through the patella cartilage, perforating it by a small aperture, and so giving rise to suppuration within the joint. We have here, then, a case of suppuration of the bursa patellæ, going on to caries of the patella, and secondarily to disorganization of the knee-joint.

4th. Sloughing of the bursa patella occasionally occurs as the result of its inflammation and suppuration. A woman was admitted into the hospital last October, in whom this bursa had inflamed and suppurated, and not only the bursa, but also the integuments covering it had sloughed away, leaving a circular ulcer in front of the knee as large as the palm of the hand, having a flappy surface and undermined purple edges. The patella was not exposed. Under ordinary treatment, the ulcer slowly healed, but no vestige of bursa was left.

We now proceed to the consideration of the second class of diseases of the bursa patellæ—those in which there is no inflammation, but in which there is enlargement of the bursa, owing to the accumulation within it of bursal fluid, of this fluid mixed with solid bodies, or of solid fibroid deposits.

The fifth morbid condition which this bursa may present is a simple enlargement, dependent on fluid accumulating in its interior. Continued pressure exercised upon the bursa, as in kneeling, is the common cause of this affection, (hence its frequent occurrence amongst housemaids,) and constitutes the true "housemaid's knee." But it is also common among other people, whose vocation necessitates long-continued kneeling. One of the last cases of the affection that we have had in the hospital was a carpet layer; it was to all intents and purposes a housemaid's knee, and the tumor equalled in size an ordinary orange. A man, aged thirty, was admitted on the 16th of March last, who, in consequence of habitually kneeling upon the left knee in laying down carpets, had a tumor there as large as an orange, indolent, soft and fluctuating to the feel, evidently an enlarged bursa. It was tapped by means of a trocar, and a seton passed through the canula, and left in for six or seven days. Suppuration took place along the seton, the tumour collapsed and contracted, and the patient left the hospital cured, on the twelfth day.

With regard to the pathological nature of the disease, it would seem to consist in a hypersecretion into the interior of the bursa, which becomes enlarged, thickened and filled with a clear sero-synovial fluid.

The treatment of these tumours is very simple. In some cases, the application of tincture of iodine, or the ammoniacum and mercury plaster, or blistering, will succeed in induc-

ing absorption of the contained fluid. If these fail, as they very often do, or if their use is too tedious, a very simple, and at the same time a very safe and successful mode of treatment consists in tapping the tumor with a trocar, and passing a seton through the canula, either by means of a long straight needle, or by using an eyed probe, and cutting down upon the end of it with a scalpel. The seton threads should be left in for a week or ten days—at all events until they excite free suppuration. This treatment is, as I just said, exceedingly simple, and perfectly certain in its results. The only point to be attended to is to keep the apertures by which the seton passes sufficiently patent to allow of the free escape of any fluid which may collect in the interior of the bursa before it is closed. This is especially to be observed with the lower opening, which is apt to get blocked up.

The sixth affection to which the bursa patellæ is liable is closely allied to the last, and appears to be an advanced degree of it. It consists in a chronic enlargement of the bursa, the coats of which are much thickened. The contents of the bursa, so enlarged, consist of a dark fluid, in which float a number of smooth oval bodies, the size and shape of melon seeds. I have seen this condition in both the male and the female. It may be distinguished from simple enlargement of the bursa by the peculiar crackling sensation which is communicated to the hand when the tumor is manipulated. This arises from the melon-seed floating about rubbing against each other.

The pathology of this affection is as follows:—There is enlargement of the bursa, and hypersecretion into its interior of simple synovial fluid, which, however, is dark-colored, owing probably to admixture of blood which has undergone disintegration. This fluid will be found to contain a large quantity of cholesterine, broken-up blood-corpuscles, and granules. The melon-seed bodies are composed of lowly-organized fibroid matter mixed with cholesterine, and are probably separated from the wall of the bursa.

The following case is a good illustration of this form of disease:—

A man, aged forty-eight, was admitted into the hospital under my care some years ago, with a tumor over the fore part of the patella, which had existed two or three years, and had attained the size of an orange. On examining the tumour, it was found to crackle very distinctly. The treatment adopted, and which is to be followed in similar cases, consisted in tapping the tumour with a rather large trocar, and passing a seton through it. The fluid which escaped was dark colored,

and contained a large quantity of melon-seed bodies. The patient was cured in a little more than a fortnight.

The seventh and last form of the enlargement of the bursa patellæ is that in which solid tumours are formed in connection with the bursa, and of which the following case is a good illustration:—

A female, aged thirty-two, had had nodes on the head and arms as the result of syphilis. These disappeared, but in the course of a year a small tumour, of the size of a pea, appeared on each patella, and gradually increased to the size of a pigeon's egg. She had not had much kneeling, and had never been a servant. The tumours were the seat of pain, especially at night; they were hard, indolent, and but slightly moveable on the patella. This case illustrates well the condition termed solidification of the bursa patellæ. By many it is supposed to be the result of the depositon of a fibroid material, which gradually takes the place of the fluid of an ordinary "housemaid's knee," and which instead of taking the form of melon seed bodies, is deposited in concentric masses, and thus accumulates in the interior of the cyst. This was not the case, however, in the instance just mentioned, nor was it in others that I have seen. In these cases I believe there is a true fibroid deposit in the bursa from the very first; the tumour is never fluid, but hard and solid from the commencement, and continues slowly to augment in size, until it occasions sufficient inconvenience to require removal. In the case under consideration there was a previous syphilitic taint; the patient complained of pain in the tumour like that which is experienced in nodes, and it is by no means impossible that there may be a syphilitic origin for these tumours.—However that may be, in this case, and in others that have fallen under my observation, the tumours have never been fluid, nor have they originated in pressure, but appear to have been primary deposit of fibroid matter. There is nothing to be done with such tumors but to dissect them out, as was done in the case of the woman I just referred to. With the most ordinary care the joint runs but little risk; but much trouble may arise from opening up that layer of deep fascia which, after surrounding the knee, is fixed to the borders of the patella. Such an accident is liable to be followed by infiltration and deep abscess in the ham, and is to be avoided in keeping the scalpel well towards the centre of the patella when operating.

These, then, are the affections to which this bursa is liable. Of the inflammatory affections we have, in the first place, simple inflammation, which may undergo resolution, or ter-

minate in suppuration, and the pus so formed may be limited to the interior of the bursa, or, as is more common, has a tendency to diffuse itself around the joint. Then we may have sloughing of the bursa itself, and lastly, caries of the patella as a secondary result. Then, amongst the non-inflammatory affections, we have the simple enlargement from the hypersecretion; the enlargement attended with the formation of melon-seed bodies in the interior of the bursa; and lastly, tumours solid from the first, and produced by fibroid deposit in the interior of the bursa.

The diseases of the bursa patellæ have their analogues in the other bursæ, such as that over the tuberosity of the ischium: but the affections of these other bursæ are by no means so frequent, so numerous, or so well-marked as are those of the patella bursa.—*London Lancet*.

On Discharges from the Urethra not of a Specific Gonorrhœa Character. By JOHN HARRISON, Esq., F.R.C.S.

It was long ago demonstrated that gonorrhœal matter comes, not as was previously supposed, from ulcers of the lining membrane of the urethra, but by exudation and secretion, from the inflamed mucous surface unaffected with any breach of continuity, except, perhaps we might now add, some degree of abrasion from partial exfoliation of its investing epithelium. In some instances, if I mistake not, the lacuna magna is the source of puro-mucous discharge, which frequently continues for a long time, and, so long as it does continue, is a cause of annoyance. From cases which have come under my notice, I have been led to consider this large mucous follicle as the sole source of the discharge. In other cases, again, the discharge has appeared to me to come from the cavity of a small abscess.

In gonorrhœa, abscess every now and then forms by the side of the frænum, and most frequently bursts externally, though occasionally into the urethra. In this latter case it is sometimes, I believe, the source of a chronic discharge, small perhaps in quantity, but which may continue after the gonorrhœa has entirely ceased. Such cases are by some very likely to be considered of more importance than they really are. Again, as elsewhere mentioned, I have met with many cases of purulent discharge, confined to the front part of the uthera, and attended by a pouting, irritable state of the orifice, which patients have told me has annoyed them for months, and for which they have taken internal medicines until the stomach has been perfectly nauseated. This form of discharge is in numerous instances kept up by the constant friction of the

lips of the urethra against the clothes, there being an entire or partial paraphimosis, the prepuce being short and the glands denuded. By merely shielding the orifice, the discharge will frequently cease in eight or ten days.

Though the most common form of inflammation of the mucous membrane of the urethra with puriform discharge is that which is excited by contact with the virus of gonorrhœa, and free from any syphilitic character, we occasionally meet with cases, beginning in the same way as ordinary gonorrhœa, and so far running a similar course, but in which, sooner or later, a small ulcer appears on the margin of the lip of the urethra, which spreads from day to day until it surrounds the entire orifice. The ulcer thus formed possesses all the characters of true syphilitic chancre, and is frequently, and that at a very early period, followed by secondary symptoms.

Other forms of inflammation of the mucous membrane of the urethra with puriform discharge, again, are met with, which are, as well as the forms just referred to, contracted by sexual intercourse, though under circumstances where there is no reason to suspect venereal taint of any kind, the cause being prolonged venereal excitement, perhaps keeping up congestion, whereby the ordinary secretion of the mucous membrane of the urethra is rendered both thicker and more copious, as in the following case:—

A gentleman, aged fifty-five, a frequent “diner out,” and a “champagne drinker;” twice married, the first marriage a *mariage de convenance*, with a lady much older than himself; the second marriage, after five or six years’ widowhood, with, I may really say, a buxom widow, much younger than himself. The third or fourth day after marriage, the gentleman suffers much heat, pain, and irritation in the urethra, with a purulent discharge. About the tenth day, the lady also experiences much irritation in the vagina, with puriform discharge. At the end of a fortnight, both husband and wife are confined to their bed, suffering from all the symptoms of gonorrhœa—the husband with inflamed glands in the groin in addition. By giving up their high living and champagne drinking, adopting a cooling regimen, with perfect quietude, and abstaining from the exciting cause, both got well again in a fortnight.

A common cause, also, is irritation from contact with what I call the natural morbid secretions of the female parts, such as leucorrhœa, lochia, &c.

In the female, discharges from the vagina, destitute of any venereal taint, are common, though capable of exciting in men

who may have connection with them inflammation of the urethra, with puriform discharge.

"Whatever," says M. Diday "be the degree of cleanliness, the apparent health, the presumed virtue, the real virtue, even virginity of any woman, she may have leucorrhœal discharge from some cause, often very innocent—metritis, chlorosis, simple catarrh, the consequence of delivery, dysmenorrhœa, as well as from gonorrhœa, however contracted. Now simply because she has a discharge of some kind, she is in a condition to transmit a discharge to a man having intercourse with her."*

But the forms to which I wish here to direct attention are those arising from causes wholly unconnected with sexual intercourse, or at least proximately so. Irritation being once set up in the genital organs, from any cause whatsoever—and there are many, we shall see, which tend to produce it,—is accompanied with puro-mucous discharge, which may continue for an indefinite period. The discharge may be slight, and in itself harmless (provided no promiscuous intercourse take place); yet, if looked at in a wrong light, as all such discharges are liable to be, it may prove a source of annoyance, disquietude and suspicion. It is, therefore, of great importance that the medical attendant should be ready to clear up and explain the matter of such cases, and thus relieve the minds of the patients and their friends.

The mucous membrane of the urethra, then, is subject to inflammation, with puriform discharge, from various other causes besides the venereal poison.

The mechanical irritation of a bougie, or the chemical irritation of a stimulating injection into the urethra, has been found to excite inflammation with puriform discharge. Thus, I have known the injection of soap and water, or laudanum—which had been used to wash out the urethra after a promiscuous connection, with a view to prevent gonorrhœa,—occasion irritation, inflammation, and discharge. Exposure to cold also acts as an exciting cause. Herpes preputialis may extend into the urethra and give rise to ulceration there, with

*We sometimes meet with puro-mucous discharge from the vagina in female children, accompanied by purulent ophthalmia; the latter, no doubt, having been excited by matter accidentally conveyed from the vagina to the eye, as happens in cases of true gonorrhœal ophthalmia. This discharge from the vagina appears sometimes to be occasioned, sympathetically by the irritation of the rectum by ascarides, or by ascarides which have actually made their way from the anus to the vagina. Vaginal discharge in young female children is calculated to cause much alarm at first, but this may be quickly allayed by explaining the nature of the case. The treatment is simple; a dose of scammony, and the use of a weak solution of the sulphate of zinc as an injection into the vagina.

or without discharge, and accompanied by severe pain, especially on the introduction of a bougie.

That some discharges from the urethra are of a scrofulous origin was long ago suggested by Mr. John Hunter. Of this there can be as little doubt as that the affections of the lachrymal passages are of that nature. The rheumatic or gouty diathesis also sometimes manifest itself in urethral discharge. At any rate, in these diathesis—the scrofulous, gouty, and rheumatic—there is a predisposition of the mucous membrane of the urethra to be more readily affected, by occasional causes, with blennorrhœa, just as we find to be the case with the conjunctiva and lachrymal passages of the eye.

In stricture of the urethra and diseases of the prostate we often meet with puro-mucous discharge. Cases are frequently met with, in which there is much irritation of the anterior part of the urethra, attended with glairy discharge, the secretion sometimes muco-puriform, with shreds of lymph in the urine. Here the disturbance at the orifice of the urethra is symptomatic of a disordered state of the neck of the bladder and posterior part of the urethra. In these cases there is a liability every now and then to attacks of inflammation of the testicle. As the irritation at the posterior part of the urethra subsides or improves under appropriate treatment, the irritation and discharge &c. at the orifice cease. The disordered state of the posterior part of the urethra being in the vicinity of the verue montanum and excretory ducts of the testes, swelling of the testicle so frequently attending these cases, is accounted for by the continuity of the muscous membrane of the urethra with that of the vas deferens. Mr. Hunter mentions cases in which, from sympathy with the cutting of a tooth, all the symptoms of a gonorrhœa were produced. This happened several times in one patient. Children, indeed, are subject during dentition to a discharge from the genitals.

The endless and ever-varying charges of the urinary secretion which takes place in certain morbid states of the constitution—gout, rheumatism, gravel, chronic dyspepsia, &c.—are conditions which, it must be borne in mind, exert more or less influence in producing irritation of the lining membrane of the urethra. The appearance in the urine of uric acid and urates, oxalates and ammonia, which takes place in the affections above mentioned, may be accompanied by much distress and irritation of the urinary passages, with puriform discharge. In these cases, we are too apt to look at the local disturbance alone as the disease, whereas they ought rather to be consider-

ed as symptoms expressive of the general disordered state of the system.

The gouty form of discharge may be produced by very slight excitement, is troublesome and protracted, frequently attended with derangement at the neck of the bladder. If this form of discharge be treated as gonorrhœa, specifically, the local distress is increased, without any diminution of the discharge. These cases are liable to relapses.

In certain affections of the spinal cord, the secretion of urine is morbidly altered; whilst, in consequence of paralysis of the bladder, it cannot be evacuated without instrumental assistance. In such cases, there is congestion of the mucous membrane of the urethra, with puro-mucous discharge.

Some of the forms of diabetes are attended with urethral discomfort with now and then a puro-mucous discharge. Piles and habitual costiveness, suppression of discharges elsewhere, cure of old eruptions, and injuries of the penis, may also give rise to discharge from the urethra.

Again, certain medicinal substances, it is well known, exert an irritating action on the urethra, and excite discharges. Terebinthinate medicines, the gum resin guaiacum, &c., have this effect. Besides these, certain articles of diet, also, if indulged in freely, now and then occasion much irritation of the urinary organs, ardor urinæ, &c., attended with more or less puriform discharge, resembling gonorrhœa.

For instance:—A medical practitioner, thirty-four years of age, some twenty-four hours after eating largely of asparagus (about forty heads of young, green asparagus), experienced heat and burning pain along the whole track of the urethra, attended with frequent micturition, chills, sympathetic fever &c. On examination of the parts, the lips of the urethra were observed to be much swollen. The urine was high-colored, scanty, and strongly impregnated with the odour of asparagine. In thirty-six hours, a moderate puriform discharge from the urethra set in, having all the appearance of gonorrhœa. Under appropriate soothing treatment, all the symptoms subsided in five days.

Those who drink largely of fermented liquors are not unfrequently troubled with urethral discharge. Bavarian beer is especially said to produce this effect, cayenne pepper also.

The history of the case, its antecedents and concomitants, will suggest its true nature to the practitioner who bears in mind, as every practitioner ought to do, that discharges from the urethra are not always owing to a specific venereal cause. Considering the various circumstances, above indicated, under which simple discharges from the urethra may occur it is ob-

vions that no one particular mode of treatment can be laid down.

The removal, rectification, or amelioration of the conditions by which the discharge may have been excited, or on which its continuance depends, will frequently be followed by improvement or recovery; but it may be necessary, in addition, to make use of a weak astringent injection, on the same principle that we find it necessary to make use of an astringent eye-water in cases of puro-mucous inflammation of the conjunctiva, no matter by what cause, or under what circumstances the inflammation may have been excited.—*London Lancet*.

On Intra-Ocular Hæmorrhage after Extraction, and other Operations Requiring a large Incision in the Cornea. By J. WHITTAKER HULKE, Esq., F.R.C.S., Assistant Surgeon to the Royal London Ophthalmic Hospital, and to King's College Hospital.

The publication of a case of intra-ocular hæmorrhage after the operation of extraction by Mr. Hildige, in the *Lancet* (November, page 410) induces me to offer some remarks upon this accident, which, owing to the absence of recorded dissections, has been until recently but imperfectly understood. The older surgeons ascribed this hæmorrhage to a rupture of the arteria centralis retinae, or of some of its large branches, and more recent authorities have accepted this theory unquestioned, although it is quite insufficient to explain the phenomena of the accident, and the order in which they occur. Several cases have come under my personal observation, three after extraction, the others after operations, requiring less extensive corneal incisions. With two exceptions, the hæmorrhage supervened immediately upon the completion of the operation, which was attended by loss of vitreous humour, though in no instance had this taken place to any considerable extent. A moment or two after the loss of some of the vitreous humour a sharp pain was felt; then the globe became tense, blood trickled from between the lids, and soon the rest of the vitreous humor mingled with blood, and covered by shreds of retina, was extruded from the interior of the globe through the corneal wound. After this a very troublesome oozing of blood continued in some of the cases for several hours. Suppuration and subsequent shrinking from the regular termination.

To avoid the distress which suppuration of the eye-ball

entails, and the protracted recovery, a patient in the Royal London Ophthalmic Hospital, to whom this accident happened in October, 1857, was prevailed on by Mr. Bowman to submit to immediate extirpation of the irreparably damaged organ. I examined the globe immediately after its removal, and noted the following appearances, which I communicated to the Pathological Society: "The globe was partially collapsed, but felt hard rather than flaccid. The greater part of the retina, covered with clotted blood, was entangled in the corneal wound. The sclerotic and choroid were widely separated by a large clot of blood, by which the latter membrane was pushed inwards towards the axis of the globe. The ciliary nerve were imbedded in the outer surface of the clot. The small space which was left in the centre of the globe was traversed from back to front by a slender shred of retina, which connected the entrance of the optic nerve with the rest of the retina entangled in the corneal wound." This dissection proved beyond doubt that the hæmorrhage came from the vessels of the outer surface of the choroid: and although this source had been previously hinted at by others, so far as I know, the fact had never been actually demonstrated.

I have since examined four other specimens obtained subsequently, preparations of which are in our museum at Moorfields, and the appearances coincide in every important particular with what I had observed in the first example. This case and the other preparations have been alluded to by Mr. White Cooper in his work on "Wounds and Injuries of the Eye," and in the *Annales d'Oculistique*, to which journal some articles on this subject have been contributed by M. Rivaud Landrau. The hæmorrhage having been shown to proceed from vessels in the outer surface of the choroid, the natural presumption is that the vasa vorticosa and their tributaries are the immediate source.

But a different view has been advanced by M. Rivaud Landrau, and one which appears to me to be based upon an imperfect knowledge of the anatomy of the parts. He says, as quoted by Mr. Hildige, "The vitreous humour, in being projected forwards, is forcibly detached from the chorioidea, and it is in this manner that the rupture of the minute sanguineous vessels which wind about (*in*) the cells of the hyaloid membrane, and radiate from the chorioidea towards them is produced." From this statement we glean two novel facts:—1st, the vascularity of the hyaloid capsule of the vitreous humour; 2d, that its vascular system is derived

from the choiroid. The first fact is, at best, non-proven until the evidence upon which it rests is adduced; and the second would imply the absence of the retina, which intervenes between the two other structures, besides which no bleeding from the inner surface of the choiroid can, as I have already stated, explain the phenomena of the accident and their sequence.

The loss of vitreous humour which precedes the flow of blood externally has been variously considered in relation to the hæmorrhage; M. R. Landrau considers the escape of the vitreous humour as the immediate cause of the hæmorrhage; Mr. White Cooper, as the effect. I think both views contain truth, but neither to the exclusion of the other. The loss of vitreous humour, by depriving the large choiroidal vessels of their accustomed support, places them in a favorable condition for rupture, which, however, does not take place without some predisposing cause, and this lies in their preternatural dilatation and varicosity, which I have ascertained in one case by actual measurement. In short, the explanation of the accident is briefly as follows:—The larger choiroidal veins being predisposed to rupture by varicosity and attenuation of their walls, burst when their wonted support is taken away, when an operation requiring a large conicle wound is complicated by the loss of some of the vitreous humour. The blood poured out on the outer surface of the choiroid rapidly strips this membrane from the sclerotic, and thrusts it inwards towards the axis of the globe at the expense of the rest of the vitreous humour, which is thus mechanically squeezed out, with the retina covering. In this way the loss of vitreous humour is alternately cause and effect of the hæmorrhage.—*London Lancet.*

Epithelial Cancer of the Lips.

Aug 21
Isolated examples of this form of cancer of the lip are occasionally presented to the notice of the pupils at the different general hospitals in London, and, when the disease has not extended too far, it is removed by operation. On the occasion of a single visit to the Cancer Hospital, we observed the following cases:

A man, sixty-eight years of age, had the left side of his lower lip affected for a year with a distinct epithelial cancerous ulceration, slowly enlarging. It had now almost entirely healed by the application, three times a day, of

equal parts of almond oil and solution of diacetate of lead (two drachms of each). This has a soothing and drying-up effect, and absorbs the surrounding induration.

Another man, sixty-one years of age, had been the subject of cancer of the middle of the lower lip for fourteen years. It had been removed ten years ago, at St. George's Hospital, but recurred some time afterwards. From being very large it had diminished to the size of a shilling, and was drying up or scabbing over by the simple application of distilled vinegar and Goulard's lotion.

A third example was that of a man, fifty-eight years of age, with the same disease affecting the left side of the lower lip for four years. He had never been operated upon, and was being treated with apparent advantage by the local application of spirits of turpentine three times a day.

A man, aged forty-five, had his lip and submaxillary glands affected. The diseased part of the lip was excised by Mr. Stanley, at St. Bartholomew's Hospital, about eighteen months before, the whole duration of his disease having been now three years. The lip remained well after the operation, but the glands in the submaxillary space of the same side of the neck began to enlarge and suppurate shortly afterwards. This is not a favorable case to treat, from the deep extension of the disease; but, under the use of an embrocation of lead, with tonics, the man was greatly improving.

A Chelsea pensioner, aged seventy-one, had a cancer removed from the right side of his lower lip two years ago, by Dr. Marsden, at the Cancer Hospital, Brompton. The disease returned, but has dwindled to a mere scale or superficial scab by the use of the soothing lead lotion.

In these five cases, which we had the opportunity of thus seeing together, there was an absence of the offensive secretion usually observed. The sores had a healthy appearance, and the patients felt that they were getting better. Without exception, all had been old smokers, and the disease was evidently traceable to the unglazed stem of a tobacco pipe. In none did it appear to be specially inherited.

On the 19th July, two cases of cancer of the lower lip were submitted to operation at Guy's Hospital. The first presented the usual character of the epithelial form of the disease, occupying the right half of the lip, involving the mucous membrane. It was removed by Mr. Hilton by a V incision, and the edges of the wound were brought together by needles. The second was a case of greater

interest, in a middle aged man, in whom there was no breach in the continuity of the mucous membrane, but a distinct tumor occupied the middle of the lower lip, projecting forwards. It was excised, in a manner similar to the previous case, by Mr. Birkett. On making a section of the tumor, it was found to be a distinct nodule of true carcinoma, of the size of a marble, and with none of the characteristics of epithelioma about it. Both of these patients were old smokers, but it was only in the first that the disease could clearly be traced to the effects of the stem of the clay pipe. Union by first intention ensued in each case.—*Lancet*, Sept. 17, 1859.

On the Physiological position of Fibrin. By LEVIN S. JOYNES, M. D., Professor of Institutes of Medicine in the Medical College of Virginia.

We can hardly do justice to this very able article in the brief extracts our space permits us to make from it, and yet it contains too much of interest to allow us to pass it by unnoticed.

Prof. Joynes gives a very just statement of the theory held by some late physiologists, viz: "That fibrin, so far from being a peculiarly organizable or plastic material, and the immediate pabulum of the most highly vitalized tissues, is, in reality, an *excrementitious compound*, not at all available for nutrition, and to be reckoned among those elements which have arisen in the blood from its own decay, or have reverted to it from the waste of the tissues, and are in process of elimination from the system."

Prof. Joynes adheres to the older theory, until recently held by all physiologists, which considers fibrin to be a most important element for the nutrition, formation and repair of the tissues; and sustains his opinion by the following arguments:

1st. "Fibrin is a constituent of the chyle. Evident indications of it are found in the fluid drawn from lacteals of an animal in full digestion, at their very issue from the intestine; but its quantity progressively increases by the transformation of albumen, as the chyle moves along the vessels towards the thoracic duct, and through it into the venous system; and a further increase takes place as the blood passes from the venous to the arterial side of the circulation. We may affirm, therefore, that the *proportion of fibrin increases as the products of digestion approach the points*

where materials are needed for the nutrition of tissue; and we may ask if fibrin be an excrementitious product, why should it appear in the chyle directly after its absorption? We cannot account for its presence here by the waste of tissue, nor can we reasonably suppose the occurrence of a "retrograde metamorphosis" a destructive change in the products of digestion as soon as they are absorbed.

2d. "Fibrin is normally found only in the nutritive fluids of the economy—the blood, chyle and lymph. It is not a constituent of any excretion, as are all those constituents of the blood which are admitted to be excrementitious—such as carbonic acid, urea, uric acid, creatine, etc.

3d. "Fibrin is nature's agent for the arrest of hemorrhage. When vessels are divided, the coagulation of the blood is the means by which their occlusion is mainly effected, and the flow permanently arrested. If the blood contained no fibrin, and were therefore not coagulable, hemorrhage, even from the lightest wound, could never be arrested by the efforts of nature. But for the same protective property every separation of a gangrenous part would be attended with bleeding. Effusion of fibrin is also the means by which suppuration is circumscribed, and prevented from assuming that diffuse character which is sometimes so destructive. In these several particulars, fibrin performs offices which are singularly conservative. Can we say as much for any of these products of wear and tear which constitute the true offal of the system? It has been aptly remarked that the organism bears an increase of fibrin better than a diminution. Witness the comparative gravity of sthenic inflammation and the severer grades of typhoid fever. Not so with any organic compound of the excrementitious class. The accumulation of these in the blood is the signal of urgent peril.

4th. "Is it mere fancy that sees in the spontaneous coagulation of fibrin, and the definite position which its particles usually assume in solidifying, the indication of a special tendency to organization? And is it unwarrantable to argue therefrom the possession of a certain degree of vitality? All attempts to ascribe this coagulation to the operation of mere chemical or physical influences have failed. It is a change which fibrin always undergoes of its own accord, when not kept moving in contact with living parts, whatever be the external condition in other respects. Whenever, in the course of the circulation, the plasma of the blood is effused from the capillaries in the midst of the tissues for their nutrition, the fibrin being now at rest, is free to pass

into the solid state, and enter into combination with the tissue or tissues of which it is the appropriate food. We have no just ground for affirming that fibrin is the only immediate tissue-forming ingredient of the blood; that albumen, for example, which abounds there, must pass through the form of fibrin before combining with any living structure. The probabilities are all against such an exclusive view. But that fibrin is a *specially and eminently organizable or histogenetic* material, this, I am convinced, is a truth which cannot be successfully controverted."—*Va. Med. Jour.*

A Case of threatened Abortion apparently caused by Malaria.
By M. O. DAVIDSON, M. D., Van Buren, Arkansas.

I attended a negro woman during the months of February, March and April last, who was threatened with abortion every two or three weeks. I first saw her on the 10th of February, at which time she was laboring under severe uterine contractions. From the character of the pains, the rigidity and non-effacement of the os uteri, I was convinced she had not arrived at the full term of her uterine gestation; and from the state of her physical strength I did not think it advisable to employ any remedy that would tend to debilitate the system. I therefore administered fifty drops of laudanum, and in two hours gave twenty drops more. Under its influence she soon fell asleep, and had no more pains until the next evening, when they came on about the same time as the day before. I stopped them with the same medicine, but not until I had administered eighty drops. Her bowels not having been moved for three days, the next morning I gave her a full dose of calomel, followed in three hours by oleum ricini, which produced several alvine evacuations. The pains returned in the evening, but were stopped by forty drops of laudanum. Knowing the patient to have been the subject of intermittent fever the summer and fall previous, it occurred to me that perhaps malaria was the cause of the uterine disorder. I therefore administered between fifteen and twenty grains of quinine the next day. She had no return of the pains for about three weeks, at the end of which time they came on again. I stopped them with laudanum, but they returned daily until I gave quinine. They continued to return at intervals of two or three weeks, until the 1st of April, when she was delivered of a fine child, at full term.

I several times withheld the quinine for a day or two, when the pains would invariably return; but when it was administered regularly it never failed to keep them in check.

Ligature of the Common Carotid for Hæmorrhage from the Tonsil—Recovery. Under the care of Dr. STANLEY.

We are glad to be able to furnish further particulars in the history of the case of Ligature of the Carotid, the former particulars of which will be found in our pages for October 29, p. 429.

The case up to the morning following the operation is fully recorded, though it is in one particular erroneous. The hæmorrhage from the tonsil at the time of the puncture was very slight, and the great losses came on some time after at repeated intervals. The following details of the operation will also not be out of place. An incision, an inch and a half in length, was made over the direction of the artery. The descendens noni nerve, where it lies on the carotid sheath, was seen, and turned aside. The artery was secured by a ligature of Glasgow twine, about three-quarters of an inch below the bifurcation.

Since the operation the man had no untoward symptoms; the hæmorrhage did not recur; the ligature fell on the fourteenth day. On November 18, the following note of his case was made by Mr. Rogers, House-Surgeon, (to whose kindness we are indebted for the particulars of the case): "The patient is going on quite well, and for the last few days has left his bed. December 2.—The man has steadily improved; the wound is nearly healed; no pulsation can yet be felt in the facial or temporal arteries of the affected side. He is so nearly well, that he is anxious to go out; but Mr. Stanley thinks it advisable that he should remain a little longer. There does not appear to have been any cerebral symptom of any kind, except a little sleeplessness one night, which is referred to excitement from his anxiety, etc."

Cases in which bleeding after the puncture of an abscess in the tonsil is so profuse as to require further surgical interference are very rare. Excepting the one given above, and a second about to be recorded, we scarcely recollect a single instance of such in the whole of the London Hospitals during the last five years. It singularly happens that the two cases occurred within a day or two of each other. In both the bleeding was profuse and occasioned serious anxiety as to the life of the patient.—*Med. Times & Gazette.*

Nævus Cured by Creasote.—Dr. Buzalsky reports in the *Med. Zeit.* the entire removal of a nævus on a child's temple by pencilling twice a day with creasote.

On the Mode of Employing the Hypodermic Treatment. By
CHARLES HUNTER, late House-Surgeon to St. George's
Hospital.

The Syringe—Its Employment; the Tissue, and the Part of the Body to Inject.—The Quantity of Fluid; Dose; Cautions.—Greater Effect on Women than Men.—Medicinal Administration by the Tongue and Rectum.—In consequence of the polite letter from “*Medicus*,” in this journal, and numerous others which I have received relative to the employment of the hypodermic treatment; I feel called upon to make the following observations; and firstly, with regard to

The Syringe for Injection.—The little instrument I use is made by Messrs. Whicker and Blaise; it is of the same make (but a little larger as regards the barrel) as their original *caustic syringe*. The barrel is of glass, with silver fittings, and contains a piston which works by a screw-rod, each half-turn of which expels half-a-minim, as a fine drop from the end of the pipe:

Two pipes belong to each syringe, the one larger and stronger than the other; the smaller pipe will be found the best for general use; it screws on and off the barrel at pleasure, and is made of silver, with a hardened gold point. This point is sharp like a needle, and perforated on one side by an oblique opening, through which the drops of the narcotic or other solution are expelled.

No incision is required with lancet or other instrument, when this syringe is used, for the point of the pipe being very sharp and fine, is readily passed, with proper precaution, beneath the skin; no blood is shed, and the operation is no more than the prick of a needle.

The Employment of the Syringe.—Having charged the syringe with the narcotic fluid, hold it in the right hand at the junction of the barrel with the pipe, and with the left hand take up, between the finger and the thumb, a fold of the skin of the patient, so as to make tense the part beyond your thumb, then the right hand being gently steadied, but not heavily pressed on the patient, let the point of the syringe, which is held at a right angle to the skin, touch the part which is tense, and with a *quick but steady movement*, be passed through it; the point being well *through the skin*, the direction of the pipe may be altered so that it may

run along in the loose cellular tissue beneath; * all this is the work of a moment; the pre-arranged number of drops are then introduced by so many turns of the piston, the pipe is then withdrawn, a finger making slight pressure as near as possible on the punctured spot, the object being both to steady the skin, and prevent any drop of liquid escaping; and lastly, a narrow strip of plaster, cut beforehand and warmed, is placed on the spot.

The strip of plaster is generally a precautionary measure, but it becomes a necessity when the quantity injected is large, say twenty minims; but it is always useful to prevent the spot from being chafed. A broad piece of plaster is worse than none at all; it presses on the "little lump," which is caused for a few minutes by the presence of the injected fluid beneath the skin, and not at all, perhaps, on the punctured spot, and so it does more to press the fluid out than to keep it in (I have seen a first injection in a case of delirium tremens fail for this very reason); *but a narrow strip just covers the punctured spot.*

These directions may appear unnecessary, but the operation may fail, as just shown, for want of attention to these little points. If the introduction of the syringe be attempted, the skin of the patient being loose, or the syringe held at the further end, and consequently unsteadily, the patient may by these means be put to a great deal of pain, and the pipe of the syringe may be bent or broken from the socket; but when it is introduced with a quick, steady movement, the skin being tense, the patient does frequently not even know when the point is introduced.

The Tissue to Inject.—The tissue injected is the cellular or areolar tissue of the body; it may not matter *much* whether the cellulo-adipose, the panniculus adiposus, or the reticular tissue beneath it (not containing fat) be injected, but the latter is to be preferred; it is the looser of the two, fluid injected into it meets with no obstruction, and cannot easily escape from it, but if injected into the skin itself, as some think it is, or the conjoined cellulo-adipose tissue, it is apt to cause pain, it enters less readily, and is more apt to escape; nor does it seem to act quite so rapidly as when injected into the loose cellular tissue from which most probably absorption is the more rapid.

*In the majority of cases, the plan above described is best, especially with thin people; if however, the patient is very fat, it is better to perforate vertically a portion of skin and subjacent fat, pinched up, and so made tense between the finger and thumb.

The Part of the Body to Inject.—When the object is to quiet the brain, or to produce a general effect, it is material whether the fluid be injected into the cellular tissue of the body or of an extremity? *No*; the non-necessity of localisation is the basis of the plan of treatment, and is the reason of its applicability in cerebro-spinal affections and general diseases. I need only refer to the various cases detailed in corroboration of this. The site which I, however, most commonly inject, is *the inner part of the arm*. The skin is here thin, easily made tense, and easily perforated; the cellular tissue beneath is loose and readily receives the fluid; there are perhaps more veins here than in some other parts, but they are easily avoided.

The Quantity of Fluid to inject.—It is well to have the fluid of that strength that three or four turns of the piston shall be an ordinary injecting dose. Two or three turns can be made in a moment of time, and it is no small relief or surprise to the patient, who has been expecting, perhaps dreading, an operation, to find all over in *less than half a minute*.

The Dose.—Too much caution cannot be employed with regard to the *amount of the narcotic injected*. Two half turns, if your solution is strong, may double the dose, and the life of the patient, for want of due care, be placed in jeopardy; I would, therefore, urge attention to these points:

1. Be certain of the exact strength of the fluid employed, and the exact value of each turn of the piston.

2. Concerning first injections, never use more than half the ordinary stomachic dose for males, nor more than a third for females.

3. Should a second injection be necessary, let it not be used too soon; nor in a full dose when the patient is partially under the influence of the narcotic.

These points are of practical importance; a *certain degree* of narcotism has to be reached for benefit to accrue, and by the injection it can be reached in many cases by a very small quantity of the narcotic, because of the rapidity with which the effect is produced, what we have to avoid is *too great* an effect; what we try to produce is a *certain effect* with *as small a quantity* as possible. This leads me to remark that *men bear narcotics much better than women*.

I was not aware to what extent this was the case until I had employed this treatment some little while; but I now think it may be looked on as a rule that men in general

will bear with no ill effects, but be benefitted by, injected doses of narcotics, which doses would very strongly, if not seriously, affect women; in fact, *this treatment is a test of the exact amount* of a narcotic necessary to produce a desired effect, when taken by direct means into the general circulation. For instance, you introduce beneath the skin the one-eighth of a grain of morphia, the effect which follows is the whole effect of the whole one-eighth; but you cannot be certain that the effect which follows the administration of one eighth of a grain, firstly, by the skin; secondly, by the stomach; or, thirdly, by the rectum, is the effect of the whole one-eighth; but it is the whole effect of the quantity absorbed.

As by this method we get the *whole effect of the known quantity introduced*, which we are not sure of getting by the other modes, we have now a method as accurate as that of venous injection (without its dangers) for testing the precise effect of little-known medicines on animals, and the exact doses and effects of well-known medicines on man, of seeing the difference which the sex requires in the dose, and of ascertaining the minimum amount required to produce a desired effect.

It is impossible to say "what amount is to be injected," without knowing the particulars of the case, as well as the sex and age; but taking the acetate of morphia for an example, I think that first injections for adult females, should vary from the one-eighth to a quarter or one-third of a grain; for adult males, from the one-sixth to half or three quarters of a grain.

First injections should be small rather than large, and are good indicators of the amount necessary, should repetition be required. It is true that I have seen used and employed myself, much larger quantities than those I have mentioned, for first injections; but the case have been exceptional, and under close observation.

In the preceding papers on this subject, I have shown the advantages of this mode of treatment over the endermic, enepidermic, and stomachic methods, which requiring longer to act are less certain, and apt to fail completely. Before, however, bringing this paper to a close, I would allude to two other modes of medicinal administration, viz., by the tongue and by the rectum.

1. *Medicines administered by the Tongue.*—Dr. Wardrop has shown* that there is a remarkable difference in point of

*Ranking's Half-yearly Abstract, Vol. xxii, p. 302.

time when medicines are absorbed from the stomach or from the mouth, absorption being most rapid from the latter, and the effect is more regular and more equable. Nor is it difficult to see why—the medicine absorbed from the mouth is taken directly into the general circulation. but when absorbed from the stomach, it has *en route* to pass through the portal system; absorbed from the tongue, the effect is more regular, because the medicine is more certainly absorbed *en masse*.

There is, then, much similarity between the hypodermic and the lingual modes. Rapidity of absorption is the great point in the *modus operandi* of each; and with regard to the effect, they both have the advantages of rapidity, greater efficacy, regularity, and equability. Can the one method, then, replace the other? Are they applicable for the same cases and medicines? No; they both have their advantages. Dr. Wardrop's plan is best for the administration of *tasteless* medicines, for calomel, *et hoc genus omne*, but it cannot be used for those medicines which are nauseating and bitter—not, in fact, for narcotics generally, not for cases of delirium, patients refusing medicine, etc., which are the cases where the other plan is most desirable.

2. *Medicines administered by the Rectum.*—This mode of medicinal administration is of great value, and useful as a means both for local and general treatment; there can be no doubt that this method has advantages which the stomachic has not, viz., of greater rapidity of action and greater effect, but the effect is *uncertain*; this uncertainty of action is *not* dependent on the mode of introduction, especially if the medicine be used in the liquid form, and employment be made of the graduated syringe, invented by Mr. Spencer Wells, to regulate the exact amount introduced; but is due to the want of *regularity of complete absorption*, which cannot be done away with. The rectal method is the more advantageous where the object is to administer the smaller doses of narcotics for affections of the intestinal canal, the rectum, and the parts adjacent supplied by the great sympathetic, but *most especially* for the speedy introduction of stimuli, and of nutriment in urgent cases; for liquids introduced by this plan have the advantage of being conveyed *simultaneously into both* the portal and systemic circulation; the hypodermic, on the other hand, is the more applicable for those cases where the part requiring the narcotic, is supplied by the systematic circulation, and is under the influence of the cerebro-spinal nervous system.

White Paint in Severe Burns.

In the Chicago Medical Journal for December, is a report of a case of severe burn, successfully treated with white paint, that occurred in our practice about two years since. The patient was a girl aged about eleven years, and was burned from her clothes taking fire while she was alone. "The whole back, from the hips to the shoulders, a surface thirteen inches wide and fifteen long, was completely charred. The back of both arms, from the elbows to the shoulders, was also burned in the same manner."

We did not attend the case until after the fifth day. Taking charge of the case, we "removed the dressings, and, on cutting through the charred flesh, we found the texture destroyed to the depth of at least half an inch. White paint was applied over the whole extent of the burned surface, and quinine and opium, with brandy, was administered internally." The bed was covered with oil silk, and the suppurative discharge became fully established on the ninth day. The discharges were extremely profuse, exhausting, and long continued. The lead dressing was covered mainly throughout, with some little variation occasionally in the form of application. Dry tannin was also sprinkled upon the surfaces occasionally. Recovery was not complete until after about fourteen months.

Judging from this case, we should think the danger of lead-poisoning from absorption had been overrated.

In that report, we made one practical remark that we consider important, and shall take the liberty to quote it here. "The friends were directed not to wash the sore at all. Through the repeated importunities of neighbors, an attempt was made to use soap and water, in cleansing the sore, at one time in our absence, perhaps about three months after the receipt of the injury. The pain it occasioned was extreme, and the sores inflamed considerably, and did not recover their former state for several days. Strange as it may seem, healthy pus is the best possible protection to healthy granulations, and the best security against their unhealthiness. When new dressings were applied, the sores were quickly and very gently wiped with dry lint only."

An explanation in regard to this case is required. We here say that fourteen months were required to effect a cure, and in the paper referred to it is stated that the sores were healed at the end of the tenth month. The above referred to report was written last March, at which time we supposed the cure was complete. We were, however, subsequently called to the case, and a cure was not effected until four months later.

A Case of Dyspepsia Cured with Strychnia. By O. C. GIBBS, M. D., of Frewsburg, N. Y.

There are but few diseases more annoying to the physician than dyspepsia. The results of medication are often quite unsatisfactory to the physician, and doubly so to the hypochondriac patient. The cause of the disease is often to be found in the sufferer's habits of life or mode of living, which, as is too often the case, he is either unwilling or has not the fortitude to change. If out-door exercise or manual labor is advised, instead of following the judicious prescriptions, he wonders at the obtuseness of intellect that cannot better understand his case, and changes physicians. Medicines he will have, however unwisely selected or unadapted to his case.

In our experience, we have found it a matter of necessity to so regulate the functions and mitigate the symptoms as to awaken the energy and ambition of the patient before proper rules of exercise, so important for the physical and mental welfare of the patient, can be enforced. Hence, all that concerns the therapeutica of this affection are matters of interest, and any fact, however isolate in character or limited in range, is by no means unworthy of record. It is in view of this last fact that we report the following case:

In May, 1859, we were called to see Mr. K——, aged about 40 years. He had been ailing for about two years; was now considerably emaciated; his skin dry and sallow; his tongue furred, and bowels costive. He was greatly discouraged, irritable in temper, melancholy, and desponding; his appetite was capricious; his sleep disturbed, irregular and unrefreshing. He had been under treatment most of the time since his illness commenced. Regular, homœopaths, eclectics, and all the traveling physicians that had perambulated the country in the time, had all had an opportunity to try their skill upon him. He seemed the worse for their attentions, and succeeding months only added to the amount and complication of his sufferings. For the last six months he had been in the habit of taking physic every other day. He had great faith in the purgative process, and supposed he could not live long without cathartics. That greatly abused organ, the liver, was supposed to be the disturber of his peace, and the cause of all his sufferings. The *Regular* besieged it with calomel and blue pill until the general health suffered, but the disease refused to capitulate. The *Homœopath* tried to coax the offender from his strong

hold with sugared mercurialis, but all to no purpose. The *Eclectic* fired his big guns, loaded with leptandrin and podophyllum peltatum with no-better effect. Now the blood was supposed to be in fault, and the great purgative purifiers were put in requisition.

We informed the patient we would undertake his case only on condition that he would follow our directions to the letter, and take, during the time, no other medicines. To this he consented. We ordered nitro-muriatic acid, in four drop doses in cinnamon water, three times a day, and Prof. Mettauer's aperient solution, in teaspoonful doses, three times a day; the dose of the last article to be increased or diminished, as necessary to secure simply one alvine evacuation daily. This treatment was continued for ten days with slight improvement. We now ordered the following:

R. Quiniae sulph.	gr. xx.
Bismuth. subnit.	℥ jss. M.

Divide into twelve powders, and take one three times a day.

R. Sp. ammon. arom.	
Tr. cardam. co. aa, f. ℥ ij.	M.

A teaspoonful three times a day.

This treatment was continued for two weeks, with improvement of some of the distressing symptoms in the gastric region. The bowels were obstinately costive, and would not move once a week, unless in response to active cathartics.

Thinking now that the fault of the system consisted in a defect of nervous energy supplied to the organs of digestion and assimilation, we ordered strychnia, in one sixteenth of a grain dose, three times a day; the mixture of ammonia and tincture of cardamoms to be continued. At the end of a week the patient said he felt better than he had done in a year, and was satisfied the last prescription was exactly what he needed—(we had not informed him of its nature.) The bowels were regular, and the mind cheerful and hopeful. We have several times observed this mental change under the administration of strychnia. The treatment was continued about four weeks longer, when the patient was discharged, cured. He is now in good health and flesh, and is daily employed in active farm labor.

Similar, in one or two points, to the above case is another which we have now under treatment. The patient is a female, aged 47 years, and has been troubled with costive-

ness for twelve years. She is quite thin, and looks like one addicted to the use of opium, but is free from that habit. She has been taking strychnia for two weeks, and to-day informs us that she has derived more benefit from this prescription than from anything else she has ever taken. Her bowels are now quite regular, though she has not taken any laxative medicine since she commenced the use of the strychnia.

We have several times previously derived the happiest effects from strychnine in certain forms of costiveness.

That this article of medicine will always act as favorable as in the case reported, is not to be expected. But, if it will act curatively in one case in ten, or will mitigate, with any regularity, any of the distressing symptoms, it will prove a valuable addition to our long list of remedies in such cases. We think it is certainly worthy of further trials.—*Medical and Surgical Reporter.*

Contributions to the History of Nervous Diseases of Syphilitic Origin. By Dr. GJOR.

The description of these diseases is based upon the accurate observation of thirty cases. Fourteen of the patients were less than thirty-five years of age, eleven were from thirty-five to forty years, and only one individual was more than forty-five years old.

In the great majority of the cases, the invasion of the disease was preceded by distinct prodromic symptoms; they consisted of pain in the lumbar region or in the extremities, or of an obstinate headache, with nocturnal exacerbations.

Most frequently the characteristic signs were of a paralytic nature; the symptoms which accompanied the commencement of the paralysis were in general not very serious, and rather fugacious; fifteen times attacks in the form of apoplexy occurred, but were of but little intensity; five times only these attacks gave rise to a complete loss of consciousness, and consecutively to weight in the head; twice the loss of consciousness was associated with convulsions; in two cases the apoplestiform attack occurred twice. Of these fifteen cases, there were only four in which the paralysis supervened suddenly, and without the health having been seriously impaired; in the eleven other cases it developed itself imperceptibly.

In half of the cases hemiplegia was noticed; eight times, paraplegia; twice, facial hemiplegia; in three cases, paralysis

confined to one extremity; in two, a general weakness of the movements of the four extremities; in nine, anæsthesia; and in two cases, hyperæsthesia. The paralysis of the extremities was accompanied, in several cases, by paralysis of the sphincters, and in four cases by amblyopia, with dilatation of the pupil.

The interval which separated the first symptoms of constitutional syphilis from the paralytic attacks, was scarcely obvious in two patients; several months to a year, in eleven; one to five years, in eight patients. In the rest of the cases the appearance of paralytic symptoms was retarded still longer.

It seemed that the patients who had suffered from several relapses of the symptoms of constitutional syphilis were not any more exposed to the nervous diseases than those in whom these symptoms had been observed only once; the number of cases of the first category is, in fact, only ten in the statistics of Dr. Gjør; he observes, however, that the number of his cases is not sufficient to deduce from them unobjectionable conclusions.

The treatment of the nervous diseases of syphilitic origin has not given, up to the present time, very satisfactory results. Of the thirty patients of Dr. Gjør, only five were cured; in twelve a more or less decided amelioration was obtained; in six cases, no change took place, and seven times the disease had a fatal termination.

Dr. Gjør employed particularly the iodide of potassium, and often combined with it strychnia, or the preparations of arnica; this remedy has afforded him the most advantageous and prompt results. Mercury was employed in five cases, and was not successful in a single one. Dr. Gjør tried syphilization several times; in one case only it produced a rapid cure, in the six other cases it was not followed by any improvement: in all syphilized patients the state of the general health was, however, much improved.

The three autopsies reported by Dr. Gjør prove, at least, that nervous diseases of syphilitic origin are not always owing, as was formerly supposed, to exostoses situated in the cavity of the cranium or of the spine; in one case Dr. Gjør found softening of the brain; in the two others no lesion of the nervous centres could be detected.—*Schmidt's Jarbueher*, 1859, CL., p. 928; from the *Norck Magazin*, XI., p. 794.

Permanent Exutories in Chronic Phlegmasiæ.

By M. RURKOWSKI.

Lesions which result from chronic inflammation, when exempt from all diathetic influence, are generally, even after a very long period, susceptible of resolution. Such fortunate terminations have frequently been due to the exutories. It is especially in diseases of the articulations that the greatest number of successful cases have been observed. Of 58 cases of Pott's disease and white swellings, the exutories were the sole means employed in 22; they were used in conjunction with other means in 12, and in 24 they were resorted to after other measures had failed. A no less positive amount of success has attended their use in chronic myelitis and the consequent paralysis—44 instances of recovery from such paralysis, with or without vertebral disease, being on record. Of 20 cases of amaurosis, 7 were treated exclusively by exutories, and 13 after the failure of all other means; permanent success resulting in the whole. So with 30 cases of various descriptions of ophthalmia, the great bulk of which had previously been treated without success. Besides these, may be mentioned old cases of pleuritic and peritoneal effusion.

EXUTORIES IN TUBERCULISATION.

The author reports 10 instances of pulmonary consumption treated with success with exutories. These individuals were all the issue of healthy parents, with no antecedent phthisis in their families. There were no concomitant or anterior abdominal affections, signs of scrofula, or disease of the bones or joints. But all the patients had cavities at the upper part of the lung, accompanied by the usual cortege of symptoms.

EXUTORIES IN NEUROSES.

Their beneficial effect has been observed in the various forms of these, whether relating to modifications of sensibility, motility, or impressionability, or to aberrations of the perceptions, of the intellectual powers, or of the moral and affective faculties.

Seeing, then, how useful this means may often prove, how comes it that it has fallen into discredit? By reason of the abuse which arose from its indiscriminate employment, whether suitable indications were present or not. Among the conditions which should oppose the use of per-

manent exutories as a means of treating chronic disease, are the following:—

I. DEEP-SEATED ALTERATIONS OF STRUCTURE.

For example, the atrophy or melting down of an organ, which has already given rise to symptoms of resorption or colliquation. In subjects placed even in the most favorable conditions, if the organs have undergone deep seated alterations, if the general reaction is continuous, giving rise to disturbance of some important function, and especially if nutrition be already deeply impaired, not only have exutories no longer any chance of success, but they may even hasten the fatal termination.

II. DEGENERATIONS.

Without speaking here of primary heteromorphies, for which no one would think of employing exutories, we allude to those insidious transformations of simply indurated or hypertrophied tissues, which are brought about either by the sole effect of chronicity, or under the influence of some diathesis or hereditary condition.

III. TUBERCULIZATION.

Although exutories may exert a beneficial action in cases of isolated tubercles, limited to a circumscribed portion of an organ, they offer no chance of success in general tuberculization—that is, when the diseased process has been set up in several organs at once, or even in several parts of the same organ. It is from their having been too frequently employed in cases of this nature, that their credit has become compromised to the extent of causing their utility to be doubted in cases in which they are really indicated.

IV. HEREDITARY INFLUENCE.

This exerts great pathogenic influence in chronic disease. Next to tubercular affections, it is in the neuroses especially that it plays so immense a part. In the examples of epilepsy and insanity, in which exutories have proved useful, the patients have been exempt from this fatal influence. Unfortunately these are the rarest cases; the immense majority are subjected to hereditary influence, and exutories will fail to exert any salutary effect upon them.

In Wurtemberg, according to a recent decree of the government, homeopaths dare not dispense their medicines. The licensed druggist, and only he, prepares and compounds the imponderables of Hahnemann.

A Revolution in Anæsthetics.

The Paris medical papers are full of the new method of producing anæsthesia introduced by M. Azam, of Bordeaux.

It would appear that, about eighteen months ago, M. Azam, had under his care an hysterical young lady, who was subject to cataleptic attacks. Upon this patient very extraordinary phenomena were noticed, coming to the ears of Bazin, professor at the Faculty of Sciences of Bordeaux. this gentleman advised M. Azam to consult a work published in England in 1842, by Mr. Braid, in which the means of producing catalepsy and artificial anæsthesia were detailed. M. Azam, procured this book, of which Dr. Carpenter has written an analysis in Dr. Todds's Cyclopædia, under the head of "Sleep," and began a series of experiments on his young patient and about thirty other persons. He found that most of Mr. Braid's statements were correct, and that catalepsy and anæsthesia could actually be obtained in the following manner:—

The patient, either sitting up or lying down, is put in a convenient position. The operator then, standing either before or behind him, places his eyes, at the distance of a few inches, but generally nearer than the point which allows of distinct vision, some bright object, upon which the patient should steadily and continually fix his eyes. The bright object should be so placed that the eyes, in looking at it, must be forcibly directed upwards, the contraction of the superior recti being carried to its maximum degree. In this position, the levatores palpebrarum and recti are strongly contracted, and convergent strabismus takes place. After this attitude, which is certainly fatiguing, has been kept up for two or three minutes, the pupils are noticed to contract, and soon afterwards to dilate; the eyelids quiver rapidly, then fall, and the patient is asleep. Two symptoms almost always present, are then observed; they are, however, in different cases, more or less marked and lasting: 1, catalepsy, exactly as described in books: 2, anæsthesia, which lasts from three to fifteen minutes, either complete or incomplete, but which allows of pinching pricking, and tickling, without any feeling being aroused in the patient, and without any change in the cataleptic state being produced. This anæsthetic state is generally followed by a very opposite condition—namely, very remarkable hyperæsthesia, in which the senses, the feeling of heat, and muscular activity reach an unusual degree of excitability. At any moment of the experiment the symptoms may suddenly be stopped, by

rubbing the eyelids, and directing upon them a stream of cold air. When the patient recover their senses, they remember nothing of what has taken place.

Several experiments have been instituted in Paris by Messrs. Follin, Broca, and others; M. Velpeau seems so convinced, that he has presented a short paper on the subject, by M. Broca, to the Academy of Sciences at the meeting of the 5th inst.

The *Gazette Hebdomadaire*, of the 9th of December, mentions the following case:—A woman, aged twenty-four, rather nervous and timid, had, in consequence of a burn, a large abscess by the verge of the anus, and was told that she would be narcotized before it was opened. A bright brass tube (a telescope made by Bruce) was placed five inches in front of the nose. The patient was obliged to squint considerably in order to look steadily at the object, the pupils contracting very strongly. The pulse, which before the experiment was quick, became now weaker, but immediately afterwards weaker and slower. After a couple of minutes the pupils began to dilate, and the left arm being artificially lifted up vertically above the head, remained motionless in that attitude. Towards the fourth minute the answers became slower and almost painful, but perfectly sensible, and the respiration slightly irregular. At the end of five minutes, M. Follin pricked the skin of the left arm, which was still held up a right angle with the trunk, but the patient did not move. Soon afterwards a puncture was made which drew a little blood, but no feeling was evinced. The right arm was now placed in the same attitude as the left, and the region where the abscess was situated brought into view. The patient yielded willingly, saying, very quietly, that she was doubtless going to be hurt.

Finally, about seven minutes after the beginning of the experiment, M. Follin laid the abscess largely open, and freed a great quantity of foetid pus. A faint cry, which lasted less than a second, was the only sign of reaction which the patient gave. No movement of the muscles of the face or the limbs was observed; and the arms remained in the same cataleptic state which they had previously assumed. Two minutes later, the attitude was still the same; the eyes wide open and a little vascular; the face motionless; the pulse as it was before the experiment began; the breathing quite free; and the patient insensible. The left heel was now raised, and it remained unsupported in the air, whilst the cataleptic state of the arms persisted.

M. Broca at this period removed the bright object which had hitherto been constantly kept before the patient's eyes, gently rubbed her eyelids, and directed upon them a current of cold air. She now made a few movements, and was asked if she had felt anything; upon which she answered she did not know. Both arms and the leg remained, however, in the artificial position in which they had been put. At this stage the left arm was again pricked, and no sensation thereby excited.

Eighteen minutes after the beginning of the experiment, and twelve after the operation, another friction on the eyelids and another current of cold air were used; whereupon the patient awoke suddenly, the cataleptic limbs all falling together. The patient then rubbed her eyes, came to her senses, remembered nothing that had passed, and was surprised that the operation was over. Her state was somewhat analogous to that of patients who wake from anaesthesia induced by ordinary means; though the waking was certainly more sudden, and without agitation or talking. The anaesthesia, which had thus been artificially interrupted, had lasted from twelve to fifteen minutes.

Two attempts of the same kind have been made by M. M. Azam and Follin, in the same hospital, upon a girl aged eighteen, who was affected with a slight wound of the foot; but the results have not been so satisfactory as they were in the last case. Two other experiments which were undertaken by M. Azam on the 8th instant were more successful. In a young woman, catalepsy began in a minute and a half, and in two or three minutes both catalepsy and anaesthesia were complete. With another woman, suffering from chorea, anaesthesia was well established in less than two minutes. A third experiment was tried in the presence of M. Trousseau, upon a girl who has been for some time in the hospital for epileptic vertigo. In a minute and a half, by means of a pair of scissors held ten inches from the eyes, she was cataleptic and asleep; and when awakened, she complained of severe lumbago and much fatigue; altogether she remained in a state of hebetude and stupor much longer than happens after recovery from epileptic attacks.

Very thin perforated elastic tubes are extensively used in England and France instead of tents of lint, sponge, etc. They keep the orifice in an abscess open, and effect its complete drainage. They are readily introduced, and produce no irritation.

Markoe on Subcutaneous Perforation of Bone in Ununited Fracture.

We extract, says the Chicago Medical Journal, the following notice of drilling from a recent lecture of Dr. Thos. M. Markoe, one of the surgeons of the New York Hospital, for the purpose of showing the result of the employment of the method and the opinions entertained of it in that establishment, and also as showing a change of opinion in regard to the question of priority of its use.

We differ only in some minor points with Dr. Markoe in regard to the value of the method, but as we hope ere long to publish another essay on the subject, we shall not enlarge upon the subject here.

1. *Drilling* the broken extremities, in such a manner as to wound, as far as may be, the opposed surfaces, and thereby to reproduce in a certain degree, the condition of recent fracture. As we now perform it, it was first suggested by Dr. Brainard, of Chicago. The operation consists in making, first, a minute puncture through the skin, near the seat of fracture, and then introducing such a drill as this I show you, which is nothing more, in fact, than a long carpenter's drill, and with it boring in various directions, wounding as far as possible the surfaces of the fragments, as often as may seem necessary, to excite some action in their bony tissue. This operation may be repeated every eight or ten days according to the effects produced, or until union is found to be commencing, the parts being kept in the meantime in good apposition and at rest. The principle of this operation is, by the wounding of the broken extremities of the bone, to excite, by that means, anew, the disposition in the parts to throw out reparative material. It is supposed that when, in any case of fracture, the reparative nîsus has failed of its effect, the disposition to repair ceases, in a great degree, and even if the obstructing cause be removed, the parts will remain quiescent, until the reparative effort is, in some way, again aroused. This is in fact the principle upon which are founded all the surgical procedures, which have gained any repute, in the management of these cases. This operation by drilling is a simple, easy application of this principle, and its subcutaneous character, while it does not impair its efficiency, renders it less liable to produce evil consequences. In its present form, it is too recent to be precisely appre-

ciated as to its result, but it has been sufficiently tried to show, that in a certain number of cases, it will suffice for a cure. We have employed it in a number of cases, in this hospital, and in some of them, with a very satisfactory success. It has the great merit of being comparatively safe, and in a certain class of cases, not the worst, is a very valuable surgical resource.

Pneumonia.

In the Chicago Medical Journal for December, Dr. Heavenridge has a lengthy paper on pneumonia. We quote one passage in regard to treatment. "In uncomplicated cases of pneumonia, little else will be found necessary than to premise a full bleeding. Should the patient be plethoric, clear the bowels with an active cathartic, and then administer quinine and opium in such quantities as to insure their quieting and sudorific effects; controlling, at the same time, the arterial circulation by means of veratrum-viride or digitalis. Should the inflammation be found obstinate in yielding, a blister will be useful in the latter part of the treatment."

The quinine and opium treatment of pneumonia seems to be gradually growing in favor. This treatment, with some variations, we have advocated for some time past, as is well known to our readers. For five years we have not found it necessary even to "premise a full bleeding." We have frequently seen a skin become moist and cough loose, that had resisted blood-letting and antimony, very soon after changing the treatment to quinine and Dover's powders; and seen a pulse come down from 140 to 90 per minute, under the same change. For report of cases, we beg leave to refer to a former paper of ours, in the Lancet and Observer for October, 1858, and the Buffalo Medical Journal for November of the same year.

Another "*Black Doctor*."—The following is a part of the public advertisement of a negro doctor:

"T. Edwards is naturally a Doctor—having a gift from the Lord. My mother was her mother's seventh daughter, and I am her seventh son; my father was a seventh son, and I am his seventh son; I was born with seven cauls, and I am a seven months' child, and walked in seven months after I was born, and have shed my teeth seven times."

EDITORIAL AND MISCELLANEOUS.

MEDICAL COLLEGE OF GEORGIA—ANNUAL COMMENCEMENT.—The commencement exercises of this institution were held at Masonic Hall in this city on Friday evening, the second of March. An address to the graduates was delivered by Prof. R. M. Johnson, of the University of Georgia, and a valedictory by Dr. J. M. Turner, a member of the graduating class. The occasion was one of unusual interest, and the large hall of the Masonic building was crowded to overflowing, many going away finding it impossible to obtain seats. The award and distribution of the prizes added much to the interest of the occasion. The first prize, for the best original thesis, a beautiful gold medal of the value of fifty dollars, was awarded, by the committee, to Dr. William S. Cannon, of Barnwell, South Carolina. The second prize, another gold medal, of value twenty-five dollars, was received by Dr. J. M. Anderson, of Georgia; and the elegant surgical pocket-case, generously offered by Dr. L. A. Dugas, Professor of Surgery, for the best Clinical Report, was borne away by Dr. D. B. Putnam, of Georgia.

The Deau's Report shows a better average of preparation in the examinations; and the general style and composition of the inaugural essays, show a marked average improvement also on previous years. The large class in attendance, the number of its graduates, and the other evidences of advancement, will gratify the many friends of this institution, and strengthen confidence in its long continued prosperity and influence throughout the South.

DEAN'S REPORT.

To the President and Board of Trustees of the Medical College of Georgia:

GENTLEMEN—In conformity to the regulations, I present the Annual Report of the Faculty. The course of Lectures which has just terminated, has been marked by no incident to which it is necessary to refer. The class has been uniformly attentive and orderly, not only whilst within the precincts of the College, but their deportment elsewhere has been satisfactory to the community. The examinations of the candidates for graduation have developed a degree of proficiency above the ordinary average, and it is with great satisfaction that the Faculty present

the following list of names of those upon whom they recommend you to confer the degree of doctor of medicine :

A. Holsenbake, S. C.	J. M. Anderson, Ga.
J. M. Turner, Georgia.	F. D. Coleman, S. C.
J. M. Simmons, "	J. C. Whitehead, Ga.
T. N. White, Alabama.	G. M. Mims, S. C.
J. R. Lawhon, "	M. A. Marshall, Georgia.
E. D. Rhodes, Georgia.	I. C. Vaughn, "
R. G. Pope, "	J. W. Duffy, "
E. J. Tarver, "	Moses Quinn, "
G. M. Witt, "	J. Y. Utter, "
C. G. Stovall, Ala.	W. H. Pugesley, "
W. S. Cannon, S. C.	T. H. Wilkinson, "
L. W. Savage, Ala.	J. L. Flanagan, "
E. A. Davis, Georgia.	M. F. Crumley, "
W. H. Daniel, "	W. W. Smith, "
W. J. Barnes, "	W. W. Jamieson, Ala.
C. S. Russell, S. C.	J. L. D. Prreyman, Georgia.
W. M. Worrell, Ga.	T. B. Akridge, "
A. S. Johnson, Fla.	C. M. Quinn, "
D. S. Holt, Georgia.	F. D. Cumming, "
J. H. Brightwell, "	J. M. Wright, Mississippi.
T. F. Fleming, "	M. W. Hodges, Georgia.
D. B. Putnam, "	S. H. Gates, "
V. B. Burton, Ala.	F. L. Jarrett, Alabama.
J. A. Scott, Georgia.	E. W. Treadwell, "
Edward Hatcher, "	T. G. Butler, Georgia.
M. B. Merriwither, Ga.	Thos. Gibson, "
W. H. Jarrell, "	J. G. Knight, "
E. Steedly, South Carolina.	H. M. Cumming, "
N. H. Henderson, "	W. M. D'Antignac, Jr., Ga.
S. M. Cross, Alabama.	A. J. Lamb, Georgia.
S. Cox, Georgia.	W. T. Grant, "

They also recommend that the honorary degree of M. D. be conferred upon Dr. J. R. Dickinson, of Alabama, and Dr. J. F. Knott, of Georgia.

All of which is respectfully submitted.

March 2, 1860.

I. P. GARVIN, Dean.

In accordance with the resolution of the Board, the degree was conferred on the above gentlemen by the Hon. Ebenezer Starnes, President of the College.

The address of Professor Johnson and the valedictory of Dr.

Turner, were highly appropriate to the occasion. As the chaste and elegant address of Professor Johnson has been applied for, for publication, we will not attempt to give any summary of it at present in these pages.

PRIVATE INSTRUCTIONS IN CHEMISTRY, &c.—Our friend and colleague, Dr. Joseph Jones, Professor of Chemistry in the Medical College of Georgia, proposes to give a course of instructions with lectures and experimental demonstrations in the above important branch of medical science, during the present summer. We know of no more improving way of spending the interval between the courses of lectures than in devoting the time to a thorough attainment of these important and most difficult departments. Students coming to Augusta to remain during this course, will have the advantage of witnessing many important surgical operations, and of seeing much which will be of great value to them in the general practice of medicine.

THE GEORGIA MEDICAL ASSOCIATION.—The annual meeting of the State Medical Association will take place at Rome, on the second Wednesday (11th) in April, instant. The last meeting was a highly interesting one, on account of the number and importance of the Reports presented, most of which have been published in the pages of this journal, and we hope the approaching one will not fall short of its predecessor in interest and scientific utility. The annual address will be delivered by H. W. DeSaussure Ford, M. D., of this city. Several important committees have been appointed, reports from which will be looked for with much interest by the profession. The committee to revise the Constitution of the Society will have important suggestions to make, which should be heard and voted upon by as large a number of the members of the Association as can be collected together at a single meeting. We would urge a large attendance by the physicians throughout the State, and from the happy experience of many of these re-unions, we can confidently promise them “a good time,” both professionally and socially. Go to Rome, and take our word for it, you will be received with open arms and a cordial welcome by that classic people.

BINDING OF THE FIFTEENTH VOLUME.—Our readers all know full well how we dread annihilation, and we earnestly ask that our twelve members, viz: the numbers from January to December, be gathered together and bound in one body corporate, and we promise a handsome and most useful volume as the result. In the several numbers of this

journal, it has been our pleasure and our pride to lay up as many of the treasures of the past year as its pages could contain—the work is intended to be useful, not only for present reading and instruction, but as a book of *reference* for the future. How greatly, then, will its value be enhanced by having the work neatly and durably bound, for there is scarcely a subject which can interest the practitioner, which will not be found collected in the body of the volume, and carefully indexed at the end of it.

Our own volume we have now before us, and feel that its value is doubled by having it in convenient *book-form*. Doubtless many of our subscribers have for years preserved their Journals, and to those who are in access to this place, we would say that they should send them all, with their fifteenth volume, to the *Book-Bindery of the Chronicle & Sentinel* office, where we can assure them, from our own experience, the work will be promptly, neatly and cheaply executed.

A Practical Treatise on the Diagnosis, Pathology and Treatment of Diseases of the Heart. By AUSTIN FLINT, M. D., Professor of Clinical Medicine, in the New Orleans School of Medicine, etc., etc., pp. 473: Blanchard & Lea, Philadelphia. For sale by Messrs. T. Richards & Son, Augusta.

A monograph on the Diseases of the Heart was certainly a desideratum in the medical libraries of this country. Since the appearance of Dr. Hopes' valuable treatise, published nearly twenty years ago, very important additions have been made, to our knowledge, on these interesting subjects, which, scattered through the journals, and held only in the perishable and precarious record of pamphlet literature, would soon rapidly pass again out of the general knowledge of the Profession. No single work embodied them all—none but an extended and comprehensive monograph *could*. Dr. Flint has undertaken this laborious task, and most ably has he performed it. Among the contributors to the science of this department, no one has been more prominent, for years past, than Dr. Austin Flint. A simple collection and arrangement of his own valuable papers, would have been doing excellent service to his profession, but he has done far more than this; in the work before us, we find a systematic treatise embodying all that is valuable in the past, and bringing the indoctrination of the book fully up to the present hour of our most advanced knowledge.

"In the preparation of this volume my aim has been," to use the author's own words, "to meet the wants of the Medical Student and Practitioner, by the production of a work devoted exclusively to diseases

of the heart, and treating concisely but comprehensively of these diseases with reference to their diagnosis, pathology and treatment." With this object in view, he divides the work into ten chapters, treating his subjects under the following heads respectively: Chapter I. Enlargement of the Heart. Chapter II. Lesions, exclusive of enlargement, affecting the walls of the Heart. Chapter III. Lesions affecting the valves and orifices of the Heart. Chapter IV. Physical signs, diagnosis and treatment of Valvular Lesions. Chapter V. Congenital displacements, defects and malpositions of the Heart. Chapter VI. Certain affections incidental to organic diseases of the Heart. Chapter VII. Inflammatory affections of the Heart—Pericarditis. Chapter VIII. Inflammatory affections of the Heart—Endocarditis—Myocarditis. Chapter IX. Functional disorder of the Heart; and lastly, Chapter X. Diseases of the Aorta—Thoracic Aneurisms.

In the above summary, our readers will, at a glance, take in much of the value of this work, but justice can only be rendered to the laborious and distinguished author by purchasing and carefully reading the book. No organ in the body requires a more careful study and the exercise of more caution in arriving at conclusions, in relation to its manifestations, than the heart. If our author has failed anywhere in his most excellent and comprehensive treatise, to do full justice to all subjects, it is in regard to the *extensive nervous or reflex relations* which the heart bears to every organ in the entire body. Receiving its innervation from the two great sources of nervous force, viz: 1st, from the cerebro-spinal, through the pneumogastric nerve, and secondly, from the ganglionic system, through branches given off by certain sympathetic ganglia in its vicinity, and also within its muscular substance, the heart is brought in the most intimate relations with, and has the most available connections with, all the functions, both of relative and organic life. It must necessarily have imposed upon it such a constant and imperative conformity to so vast a number of varying influences, that when we endeavor to estimate the various sources of its movements, the task becomes one of much difficulty, and unless great caution is exercised, we are apt to attribute symptoms to a different source from that whence they truly originate. The blood acting as its irritant, its own inherent muscular irritability, the presence of ganglia within its own substance, and its evident supply of both cerebro-spinal and ganglionic nervous influences, render its study most complex and difficult. Yet, notwithstanding all this obscurity and complexity, it is plainly manifest that no organ in the body is more extensively correlated in regard to the influences which govern it and modify its action, than the heart is; the emotions of the

mind, the condition of both the thoracic and the abdominal viscera and the state indeed of every organ of the body, no matter how remote from the heart itself, is familiarly known to modify its movements—the complaints from the most distant parts of the organic realm, apparently being heard and quickly responded to, from this ever-wakeful citadel of life.

Long continued or violent excitement of this delicate responsive organ, whether produced directly from its own inherent irritability or by reflex action, the irritation being in some distant organ, often lays the foundation, doubtless, of *organic disease*, and considerations of this kind would add much to the fullness and completeness of a treatise on the history, nature and treatment of Diseases of the Heart. The experimental researches of Bichat Cruikshank, of John Reid, and of Sir Benjamin Brodie, and more recently, of M. Brown-Sequard, of Paris, and of Dr. O. Spiegelburg, of Göttingen, all confirm the views we here express, and prove the extensive correlative excitability of the heart, and show how important it is not to overlook the reflex influences which are constantly bearing upon it.*

On the important subject of "*Heart Clots*," Dr. Flint appears to have selected all that is most valuable, and presents a good *resume* of scientific opinion in regard to it: quoting the views of Bouillaud, Rokitansky, Grisolle, and Professor C. D. Moëg, while he recommends the valuable Prize Essay of Dr. Richardson, of London, "*On the Cause of Coagulation of the Blood*," London, 1858. This last writer, we believe, is the only one who has attempted to suggest any rational means of prevention for this usually fatal affection. His prophylaxis consists in the administration of certain alkaline remedies which are supposed to favor the solubility of the fibrine, and thus prevent coagulation of the blood. "If it is true," says our author, "that fibrin is held in solution in the blood by the presence of ammonia, according to the late researches of Dr. Richardson, it would seem to be a rational inference that ammoniacal remedies must be the most efficient in fulfilling this second object in this prophylactic treatment." "The idea of giving remedies with a view to *dissolve* the solidified fibrine," he adds, "is absurd."

In conclusion, we here cordially commend Dr. Flint's work to the attention and careful perusal of our readers, as one which even having once read and carefully marked, he will find always valuable as a book of reference, for the most reliable information, in everything which pertains to Diseases of the Heart.

* See also, Report on Nervous System in Febrile Diseases. American Transactions, 1858—Art. Law of Excito-Secretory action applied to the Heart in Malarial Fever. By H. F. CAMPBELL, M. D., &c.

The Microscopist's Companion; A Popular Manual of Practical Microscopy; Designed for those engaged in Microscopic Investigations, Schools, Seminaries, Colleges, etc., etc., By JOHN KING, M. D. pp. 308. Illustrated with 114 wood cuts. Riekey Mallory & Co. Cincinnati, 1839.

Nearly twenty years ago, when in our early pupilage we began to find interest in, and were attracted by the description of microscopic objects, casting about for some book of instructions to guide us in the management of our very imperfect instrument, nothing could we find but the single work of Mandl, in the French language, at all accessible to the American student.

Since then, what a change has taken place in the progress and literature of this department, and how completely altered is the aspect of all the branches of science upon which microscopy has been brought to bear. Natural History, Physiology, Pathology and Anatomy, indeed, every branch, however remotely or directly related to medicine, has been made to illustrate the wonder-working, illuminating power of concentrated and refracted rays through the medium of the microscopic lens. Since then, too, thousands have engaged in the study, and many hundreds have recorded and published their observations, and now the science of microscopy may be said to have a more abundant and profound literature than any other department of human knowledge. Indeed, all the other departments, as they exist at the present day, more or less depend upon the services of this choice and most useful of all the handmaids of science. The books of the other departments are, in the main, so far as relates to all new discoveries, but *Micrographia* of the hidden secrets of a world till recently, beyond our ken. Ever widening in its researches, the naked eye is no longer trusted; as the Astronomer peers with the telescope, into the wide ethereal expanse above him, bringing out world after world and system after system, so the scientific man of the present day peers into the illimitable space furnished by a single drop of water, and from it brings out individual after individual, species after species, class after class, until an entire universe heretofore unrevealed and even unsuspected, looms up before him, convincing him ever, that God is great even in the minutest, as in the most stupendous, of his works.

If we attempt even to recount the names of some of those who have engaged in this great work, we would find this alone no inconsiderable task; we find here the names of all countries, and certainly of all portions of the alphabet—Agassiz, Audouin and Addison; Bailey, Beale, Bell, Bennet, Burnet and Brocklesby; Carpenter, Catlow and Coultas; Dujardin, Dutrochet, D'Orbigny, Dana and Doane; Ehrenberg, Edwards,

Eschricht, Eickhorn and Erdl; Focke, Frey and Frooip; Grant, Gresse, Goadby, Goring, Girard, Gulliver, Griffith, Gerber and Gliechen; Hassel, Heale, Henfrey, Hogg, Hooker, Hoffmann and Huxley; Joly, Johnson, R. Jones, C. H. Jones and Jacobson; Kolliker, Kosse, Kirkland, Krohn and Kutzing; Leeuenhœk, Lenchart, Lowen, Leue, Leidy and Latour. And so we might continue to enumerate at least as far as Unger, Volkmann, Weigmann and Zenker, but the list becomes tiresome, and the labor will scarcely remunerate.

The work before us is a very useful elementary resume of what is necessary for the practical working of the microscope. It does not pretend to be original, claiming only to be useful and practical. Instructions are given as to the choice and prices of microscopes, and a minute description of the various parts of the instrument, and also as to the selection of test objects and the collection of specimens. A most valuable feature of the work is the glossary at the end of it, which seems to have been carefully brought fully up to the latest addition of microscopic nomenclature; and on this account, if for no other reason, the book will be found most useful in the hands of the young microscopist.

The typographic and lignographic execution of the book is very good, and the entire work may be said to do credit both to author and publisher.

IMPROVED NEEDLES FOR VESICO-VAGINAL FISTULA.—We have received specimens of an improved needle for this operation, from our friend, Dr. Robert A. Kinlock, Surgeon to Roper Hospital. The eye of the needle is so devised that the wire sutures can be applied *directly*, without the previous use of silk threads. A groove, extending from the eye to the head or back part of the needle, accommodates the wire and permits the whole to pass smoothly through the tissues. We have not, as yet, tried these needles practically, but in a few days expect to do so on a case now in Jackson Street Hospital.

“Unaccountable Antipathies.”—The following are a few of the more striking manifestations of the unaccountable feeling of antipathy to certain objects, to which so many persons are subject, and with instances of which—in a modified form, perhaps—most people are acquainted with:

“Erasmus, though a native of Rotterdam, had such an aversion to fish, that the smell of it threw him into a fever.

“Ambrose Pare mentions a gentleman who never could see an eel without fainting.

“There is an account of another gentleman, who would fall into convulsions at the sight of a carp.

“A lady, a native of France, always fainted on seeing boiled lobsters. Other persons from the same country experienced the same inconvenience from the smell of roses, though they were particularly partial to the smell of jonquils or tube-roses.

“Joseph Scaliger and Peter Abono never could drink milk.

“Cardan was particularly disgusted at the sight of eggs.

“Uladislaus, King of Poland, could not bear to see apples.

“If an apple was shown to Chesne, secretary to Francis, he bled at the nose.

“A gentleman in the court of the emperor Ferdinand, would bleed at the nose on hearing the mewling of a cat, however great the distance might be from him.

“Henry III. of France could never sit in a room with a cat.

“The Duke of Schomberg had the same aversion.

“M. de Lancre gives an account of a very sensible man, who was so terrified at seeing a hedgehog, that for two years he imagined his bowels were gnawed by such an animal.

“M. Vangheim, a great huntsman in Hanover, would faint, or, if he had sufficient time, would run away at the sight of a roasted pig.

“John Rol, a gentleman in Alcantara, would swoon on hearing the word *lana* (wool) pronounced, although his cloak was woollen.

“The philosophical Boyle could not conquer a strong aversion to the sound of water running through a pipe.

“La Mothe la Vayer could not endure the sound of musical instruments, though he experienced a lively pleasure whenever it thundered.

“The author of the Turkish Spy tells us that he would rather encounter a lion in the deserts of Arabia, provided he had but a sword in his hand, than feel a spider crawling on him in the dark. He observes that there is no reason to be given for these secret dislikes. He humorously attributes them to the doctrine of the transmigration of the soul, and as regarded himself, he supposed he had been a fly, before he came into this body, and that having been frequently persecuted with spiders, he still retained the dread of his old enemy.”

M. Bean, an hospital physician of Paris, has found that workmen who handle lead do not suffer from phthisis, and that the progress of this disease has been stopped by symptoms of lead poisoning.

Dying Words of Noted Men and Women.—"While you are in health and strength labor to do good, and to avoid evil, if you ever wish to escape the distress that oppresses me."—*Sir John Hawkins.*

"Be good, be virtuous, my lord. You must come to this."—*Lord Littleton.*

"See in what peace a Christian can die."—*Addison.*

"So you will keep peace within, which will be a comfort in the day of trouble."—*William Penn's Father.*

"I have lived long enough."—*Locke.*

"It is a sharp medicine, but a sure remedy for all woes. So the heart be right, it is no matter which way the head lies."—*Sir Walter Raleigh.*

"Be of good cheer and play the man, Master Ridley. We shall this day light such a candle in England, as I hope by God's grace, shall never be put out."—*Latimer.*

"I am grateful to divine mercy for having left me sufficient recollection to feel how consoling prayer is to the dying."—*M. de La Harpe.*

"Had I served my God as diligently as I have served the king, he would not have forsaken me in my gray hairs."—*Cardinal Wolsey.*

"God bestows talents on our youth. Do see that they use them right."—*Melancthon.*

"Give Dayroles a chair."—*Lord Chesterfield.*

"God preserve the Emperor."—*Haydn.*

"The artery ceases to beat."—*Haller.*

Nux. Vomica as a Febrifuge.—M. Angels Pogliani has tried nux vomica in thirty-seven cases of fever, which should be divided in the following manner: One case of quartan, two of quotidian, two of double tertian, thirty-two of simple tertian.

The use of the medicine was always preceded by a saline or oily purgation and acid drinks. The dose was from six to nine grains of nux vomica, divided into eight papers, one taken every two hours during the apæynxia. If the fever returned, another dose of nux vomica was administered, or the half only of the first prescription in one or two times. Under the influence of this medicine twenty cases yielded to the first dose, eleven required two, four required three, and two were absolutely rebellious to the medicine. It is necessary to add that with the last two subjects quinine was equally inefficacious, an effect which M. Pogliani attributes to a strongly marked state of gastric inflammation.—*Jour. de Chim. Med. and The Druggist.*

Preparation of Caffein.—The process of caffein most used consists in treating ground coffee with boiling water, and adding to the infusion a salt of lead, for the purpose of precipitating the tannin. The precipitate is washed with boiling water, and the filtered liquid treated with sulphuretted hydrogen, to remove the excess of lead. The liquid, deprived of the sulphide of lead, is concentrated by a moderate heat, and crystals of caffein obtained.

To prepare this substance, M. Vogel indicates a mode more simple and less costly; it consists in treating the coffee with benzole; we isolate by this means the caffein and an oily substance. The benzole is separated by distillation; the residue is put in boiling water, which dissolves all the caffein, which can be crystallized by the concentration of the liquid.—*Jour. de Phar. et de Chemie and Druggist.*

Buttermilk and Longevity.—It has often been stated, that the majority of centenarians here, attributed their long life to the free use of buttermilk; and the Philadelphia papers, in noticing the arrival from Ireland, in that city, of Mrs. McKenna, an old lady, who has nearly completed her century, very gravely added, that “her existence has been prolonged by buttermilk.” To this, the venerable old lady replied, in a spirited card, in which she says:

“Some of the papers, in speaking of my life, refer to the old saying, of using buttermilk; in answer to which, I have merely to say that I have never used any kind of milk, except in tea, coffee, &c. I am now nearly one hundred years of age, and, for the last half century, have resided in Calledown, a beautiful village, in the county of Tyrone, in the north of Ireland. Temperate habits, and my usual walk, of about two miles to church, I think, had a great tendency towards lengthening my existence in this world.”—*Home Press, St. Louis.*

The North American Medico-Chirurgical Review.—With the January issue of the Review the name of Dr. S. W. Gross, Lecturer on Surgical Anatomy and Operative Surgery, appears. Dr. Gross has been for some time doing editorial duty, and his announcement on the title page is a proper acknowledgment of his position.

The government of Bavaria has prohibited the wrapping of tobacco and snuff in lead or tinned lead foil, on account of the danger of metallic poisoning to those who continually use these articles.

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Professor Medical Chemistry and Pharmacy in the Medical College of Georgia.
AUGUSTA, GA., April, 1860.