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ACUTE FARCY.

By D. O'BRIEN, M.D., OTTAWA.

On the 27th of last November I was asked to see Mr. D., a man about 37 years of age, well-nourished, of good family history, and had always enjoyed good health. He had been employed as an assistant with a man named Alexander, who keeps a stable for diseased horses, and had constantly under their care several of those diseased animals. Four days previous, I was told, my patient had been hurt whilst attending one of those animals, and since then was complaining of a very severe headache, frontal in character and was increasing in severity, great thirst, loss of appetite and sleep, bowels constipated, and a general feeling of malaise; had no distinct chill, though he frequently complained of feeling cold; no enlargement of the glands or tenderness of the veins, though there was slight tenderness and redness along the inside of both legs, over lymphatics; nor could I discover any abrasion or external wound on the body. Pulse 100; temperature 102° . An abscess was discovered on the right arm, midway between the shoulder and elbow, in the fleshy part of the biceps muscle, circumscribed, but no redness nor much tenderness except on deep pressure, and having a soft elastic feel. Ordered poultices for the arm and five-grain doses of antipyrin to be repeated every hour if headache was not relieved.

Nov. 28th.—Headache considerably relieved by the antipyrin,

of which he had taken half a drachm in five-grain doses every consecutive hour for six hours the evening previous, but this morning at 11 A.M. is worse than ever; pulse and temperature unchanged; redness on inside of legs more defined. Opened abscess, which discharged about an ounce of bloody-looking matter. Slept none during the night; thirst excessive. Ordered two-grain pill of quinine every four hours and a quarter-grain morph. sulph. every hour in the evening till relief followed, and supporting treatment as usual, which was one ounce of old rye every four hours with plain soda water and milk *ad. lib.*, concentrated broths and the whites of four fresh eggs in the intervals.

Nov. 29th.—Slept none; headache temporarily relieved; had taken six $\frac{1}{4}$ -gr. doses of morphine in as many hours; temperature 103° ; pulse 106; tongue heavily coated with white fur; headache this forenoon as bad as ever; thirst increased, and had some vomiting for the first time early this morning. Face has an anxious, pinched appearance; redness and tenderness on the legs somewhat more marked; abscess discharging. My friend Dr. Powell saw the case with me this evening and concluded trying the following treatment: 15 η Tr. Ferri Mur. largely diluted every four hours, and $\frac{1}{4}$ -gr. doses of the sulphide of calcium every six hours, with 40-gr. doses of chloral hydrate at bedtime, to be repeated if required.

Nov. 30th.—Slept little or none, notwithstanding he had had three doses of chloral in as many hours; headache no better; temperature 103° ; pulse 110. Streaks of redness on the legs more defined, with certain tender points on inside of right leg, and a sensation of hardness in area about the size of a large almond, somewhat superficial. Ordered poultices to tender points.

Dec. 2nd.—As I did not see my patient on the 1st, was told he had been complaining of pain in the knees, especially the left; there was no swelling or redness, except continuation of redness from above on inside. Opened two small abscesses on inside of right leg, discharging about a teaspoonful each of creamy-looking matter. Headache still continues, though masked,

no doubt, to some extent, by pain in knee joint. Pulse 108; temperature $103\frac{1}{2}^{\circ}$. Slept none; thirst as severe as ever; bowels somewhat relaxed all night, but better this morning, and did not interfere with them. Hot fomentations for knees and medicine as usual. Had three doses of chloral each hour last night and night previous.

Dec. 3rd.—Spent a very bad night; pain in left knee excruciating. Patient asked for anything that would relieve the pain: didn't care, he said, if it killed him, as long as he got relief. No swelling or redness appreciable around the joint. Pain is increased by movement. Two more nodules appeared on left leg, in the line of redness. Temperature 103° ; pulse 120. Thirst continues. Had diarrhoea all night; bowels still relaxed; also says headache is as bad as ever. Ordered twenty drops deoderised tr. opium and two grains sulpho-carbolate of zinc; chloral to be discontinued.

Dec. 4th.—Had a couple of hours sleep last night. Took two doses of opium mixture inside of an hour. Pains all seem modified to some extent to-day. Temperature $102\frac{1}{2}^{\circ}$; pulse 112. Thirst still continues. Opened two more small abscesses on inside of left leg, discharging about same quantity and character as those opened in the right leg. Two more appearing on the outside of right leg; no superficial redness nor much tenderness, except on deep pressure; slightly raised above the surface, in a line with each other, and about three inches apart. Diarrhoea checked.

Dec. 5th.—Two abscesses opened on outside of right leg; discharged about a teaspoonful each of creamy pus; no redness superficially, but have a soft, doughy feel. Had a comparatively comfortable night. Pains not so localized in head and knees, the latter are extremely painful when moved, especially the left; no redness or any perceptible swelling around either. Temperature 102° ; pulse 108. There was slight delirium last night. Opium mixture given twice during the night. Bowels satisfactory. Slept at intervals. Thirst still troublesome.

Dec. 7th.—Unfortunately missed seeing patient yesterday. Has been complaining all night of difficulty of breathing through

the nose ; little or no air seems to pass through the nostrils. Pulse 120 ; temperature 103° . Thirst still troublesome. Pains in the knees only complained of when moved ; headache not complained of so much. Two more small abscesses opened on left leg below the knee, in the line of redness. A few small red papules appearing on the face, look like acne ; some more advanced and angry-looking. Patient shows signs of exhaustion and symptoms assuming a typhoid character. Sulphide of calcium discontinued to-day and 10 grains of carb. of ammon. every three hours substituted.

Dec. 8th.—Typhoid condition more marked ; delirium at intervals. Temperature $103\frac{1}{2}^{\circ}$; pulse 120. Opened three abscesses on the inside of right leg, between knee and ankle, discharging about a drachm of the same characteristic matter, and two on right arm, between elbow and wrist. Stoppage of nostrils still continues. Some discharge came from one nostril through the night. Some of the papules now pustular in character ; one large one on forehead discharging. Pains not complained of at all, except knees, and then only on movement. Does not ask for drink, but takes drink and nourishment when offered to him.

Dec. 9th.—Delirious all night, low muttering character ; still delirious. Urine passes unconsciously. Temperature $103\frac{1}{2}^{\circ}$; pulse 128. There is considerable discharge from nostrils, thin and greenish-looking in character, not offensive in smell. Opened an abscess on right arm, below elbow, and one on the hand ; all previous ones opened discharging, those opened first especially ; the one on right arm has an excavated, angry-looking appearance. The large pustule on forehead has the same excavated, circular appearance.

Dec. 10th.—Temperature 103° ; pulse 130, and evident loss of volume. Discharge from nostrils still continues. Considerable swelling of the forehead at and around the large discharging ulcer, erysipelatous-looking in character, deep crimson in color. Urine still flows unconsciously, and diarrhoea mixture has to be given occasionally as bowels are again becoming relaxed. Patient takes nourishment constantly, but, notwithstanding, is evidently sinking.

Dec. 11th.—Swelling and redness of yesterday on the forehead considerably increased, more so on one side. Nose swollen and discharge from nostrils diminished. All symptoms of yesterday exaggerated. Pulse 140; temperature 104°. Delirium and stupor more profound. Advised medicine to be stopped, as I considered it only a process of torture to persevere in them any longer, and he succumbed the following day, fifteen days from the time I first saw him, and nineteen or twenty from the onset.

Remarks.—I had considerable doubt the first few days in this unfortunate case what I had to deal with. Of one thing I was positive, that some specific poison was in this man's system. And could it be possible that all the subsequent symptoms were due to this primary abscess on the arm? I do not think so, and imagine, had I not been aware that this man had been daily exposed from his occupation to the virus of glanders or farcy, I would still have found it difficult to come to any other conclusion but a poison of some peculiar nature had found its way into this man's system. Some of the most prominent symptoms described by Niemeyer, I consider, were typical in this case. Headache, thirst, sleeplessness, pain in the knees, simulation of metastatic abscesses, pustular eruption, and finally discharge from the nostrils, all seem to point to one conclusion, that the case was one of acute farcy.

Quotation from Niemeyer.—“Both glanders and farcy appear in man. The latter form, however, is the most common, and usually attacks the skin, upon which it generally produces an eruption of tubercles. Those of the skin, subcutaneous areolar tissue, muscles and lungs are purulent rather than caseous, and in the connective tissue, muscles and lungs they bear a great similarity to metastatic abscesses. The lymphatics and their glands are likewise often implicated in the disease in man, and, as in horses, they sometimes produce a chain of farcy buttons.

Symptoms and course: The period of incubation of glanders or farcy is of variable duration. Where the virus has been implanted upon a wound the first symptoms generally appear within three or four days; but when infection occurs where there has

been no breach of surface (as when the virus has been inhaled), the malady often does not break out for months. The term prodromal stage or stage of invasion is usually applied to the period during which, although none of the lesions characteristic of glanders or farcy have as yet appeared, still, fever, constitutional disturbance, and certain subjective symptoms announce a general infection of the system. Sometimes a single rigor occurs at the beginning of the attack; in others the rigor is repeated several times. The skin grows hot, the thirst augments, pulse accelerated, the patient feels depressed and languid, pain in the head, sleeps badly, no appetite—in brief, exhibits a series of symptoms such as accompany other infectious diseases. These manifestations, however, are accompanied by another constant and somewhat characteristic phenomena—a violent pain in the joints and muscles. The seat of this pain is usually in the vicinity of the greater articulations, and is sometimes, though not always, attended by moderate swelling of the painful part. Although these articular and muscular pains often cause the disease to be mistaken for rheumatism, yet, when they occur in an individual whose history is suspicious, they may aid us in an early and correct interpretation of the symptoms. The first stage of the disease lasts for a longer or shorter period; the symptoms may increase steadily all the time, or else gradually grow milder. The aspect of the disease at this period presents many varieties, according as the malady selects one or other tissue as its seat; if it attacks the nasal mucous membrane (as glanders in the stricter sense of the term), an erysipelatous inflammation makes its appearance upon the exterior of the nose and its vicinity. The nose, eyelids and the forehead swell, assuming a dusky redness, and are covered by blebs, the precursors of gangrene. The patient cannot breathe through his nostrils, from which there flows a liquid, at first scanty, thin, and mingled with streaks of blood.”

A PLEA FOR OPERATIVE OR RAPID DILATATION OF THE CERVIX UTERI.

By T. JOHNSON-ALLOWAY, M.D.,

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Up to within four or five years ago steel uterine dilators were regarded by surgeons with a shudder somewhat akin to that experienced by visitors to the Tower of London when shown the "thumb-screw" and other ancient instruments of torture. They saw in it a powerful render asunder of vital tissues, and that such traumatism must be followed by dangerous inflammation. It was not however thought, that forcible dilatation of like nature was practiced as the safest method of opening deep-seated abscesses situated in equally vital parts. On the other hand, gradual dilatation by tents was regarded as an easy procedure, and within the province of every busy practitioner. In fact, the practice became so general with physicians that it was considered equally as necessary to have nicely assorted sizes of sponge, tupelo and tangle tents, as it was to have a pair of obstetric forceps. As a consequence of this, unfortunate women were required to undergo intense suffering, and were often destroyed through the intervention of septic peritonitis. The employment of such methods in the past was justified only on the ground that no better were known at the time. This justification can, however, no longer hold good, and I will endeavor to show, in as short a space as possible, why the more scientific, humane, and safe method should be employed in preference to the older and more dangerous.

In the days of our first endeavors in the practice of medicine, when each man estimated his prosperity and public value in accordance with the number of visits he was able to pay during the current twenty-four hours, he had of necessity quite a number of patients suffering from uterine complaints. The majority of these patients suffered from endometritis in some form or another. The treatment adopted in these cases consisted in forcibly pushing a tent as far as possible into the cervical canal, allowing it to remain there for twelve to twenty-four hours, then violently pulling and

twisting it out with the view of tearing away the diseased granulations. The whole canal to the fundus uteri was then swabbed out with nitric acid, or some such escharotic. During the time this method of treatment was being carried out the suffering these poor creatures underwent could be endured only by women. The burning-hot-plate treatment, with the aid of opium, was kept up for twelve hours at least to offset the suffering caused by the gradual distension of the tent in the inflamed cervical canal. And this probably in a patient with a chronically inflamed and tender parometrium, a perimetritis, and other diseased conditions of the uterine appendages. In fact, it is appalling to one to reflect upon the amount of misery and suffering which must have been inflicted upon women during the tenting period of gynæcology. It would be impossible to estimate the number of induced attacks of acute pelvic inflammation which have occurred during this period. Many deaths have also occurred, and a majority of these I believe to have been due to a latent form of tubercle lighted up suddenly by the violence of the treatment into a fatal attack of acute tubercular peritonitis. I have seen post-mortem cases of the kind, and I am sure others have seen the same. We know how common tuberculosis of the peritoneum is in tubercular women, and how latent and unobserved it will remain until accident happens to kindle it into an acutely fatal disease. From a careful consideration of these facts I feel convinced that many so-called delicate women have been killed prematurely by the use of tents and escharotics in the treatment of chronic uterine disease. Of the many deaths occurring from this method of treatment a few have been reported. In the *Amer. Jour. of Obstet.*, 1881, page 666, is reported a case by Dr. W. T. Lusk of death from septicæmia following the repeated introduction of sponge and tupelo tents. At the same meeting Dr. T. A. Emmet spoke of a case in which septic peritonitis followed the use of a sponge tent, the disease developing on the seventh day after its introduction. Dr. Emmet said that he had come to feel that he almost took the life of the patient in his hands when he used a sponge-tent. At the same meeting Dr. Janvrin showed the

specimen of a case in which pelvic cellulitis, abscess and death followed dilatation by a tupelo tent and stem pessary. During the discussion on these cases it was universally thought that the prolonged local irritation, together with the introduction of septic matter, was the direct cause of trouble.

In the same journal (1885), page 952, Dr. C. C. Lea reports a case of perforation of the cervix uteri by a lamina tent. Dr. Mundé also spoke of similar cases. And in the issue of 1888, Dr. C. C. Lea presented a specimen of a case of death due to septic peritonitis following dilatation of the cervix uteri by lamina tents. Without going any further into the misfortunes of tents in general, we may ask ourselves, Why has dilatation by tents been so much practised during the past twenty years when death or destruction of health has always been considered in the balance? I can only answer such a question by repeating Emmet's conviction above quoted, "that he always, when using tents, held the patient's life in his hands"; and Marion Sims' statement that he never used them when he could possibly avoid it, and never applied them without apologising to the patient for the very unpleasant effects they produce. Sims also stated that he who gives an efficient, safe, and pleasant substitute for tents will confer a great boon on surgery. Marion Sims' book, "Uterine Surgery," written in 1865, undoubtedly has been responsible for the great generalization of the practice. He, however, tells us that it is necessary, before using them, to explain to the patient (1) that the tent may possibly cause some uneasiness; (2) that it will certainly produce a dirty, disagreeable, bad-smelling discharge; and (3) that it will be necessary to see her in six or eight hours to remove the tent and probably to introduce another.

Judging from such advice to his patient, from such a man, the use of the tent in gynæcology could only have been justified by the general status of surgery at that time. Sims, in his honesty of purpose, knew that it was a dirty, bad smelling, dangerous thing, and felt that improved methods would surely come.

The reason of the foetid discharge from the uterus after removal of the tent is because the operation has been a septic

process. It is absurd to think that tents can be made aseptic by any process whatsoever. The instrument makers are responsible for nothing but the shape and size of the tent, notwithstanding how positively they assure us that those of their special make are aseptic.

It is not my intention to describe precisely the operation of rapid dilatation of the cervical canal by means of the steel dilator, but I *do* wish to speak of the great advantage of the operation over the gradual or tenting method. To perform rapid dilatation it is necessary to see the operation done, there are so many important details in connection with it. The patient should be profoundly under ether. The instruments which give the best satisfaction are Sims' glove-stick dilator and the Ellinger-Goodell serrated dilator. These instruments can be thoroughly boiled and otherwise prepared before using. The vagina is washed out with soap and warm water, and then irrigated with 1-1000 sublimate. The operation can be combined with that of incision to any degree the operator determines upon. My experience has led me to think that the combination is a good method, better probably than simple dilatation as practised by Goodell. I have now performed the combined dilatation and incision operation so often, and under varied conditions of the pelvic organs, without having had an interruption in recovery, that I feel convinced the operation should have absolutely no mortality.

This short report is not intended as an essay upon dilatation of the cervix uteri, but as a warning and protest against the use of the dangerous tent. Before closing, however, I must not forget also to protest against the half-hearted sort of tampering with steel dilators, so often adopted in office practice, before making uterine applications of caustics. This practice is most iniquitous, and more cases of pelvic inflammation have followed it than has been credited with. The vagina in such cases cannot be properly cleansed, the uterine tissues are resisting without anæsthesia, and any lacerations made are direct inlets of infection to the lymph spaces and vessels. Put your patient thoroughly under ether, conduct the procedure as you would a laparotomy, and avoid tampering with patients' lives to suit a little personal convenience on your part.

THE INFLUENCE OF THE NERVOUS SYSTEM ON CELL LIFE (METABOLISM).*

BY T. WESLEY MILLS, M.A., M.D., L.R.C.P., LOND.,
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In a paper entitled "A Physiological Basis for an Improved Cardiac Pathology," read in abstract in August, 1887, before the Canada Medical Association, I endeavored to show the relation of the cardiac nerves to the nutrition of the heart; but the subject grew as I proceeded with its study, so that I perceived that the theory I applied to the heart was equally true of the other organs and tissues. In that paper, which was published in the *New York Medical Record* of October 22nd, 1887, I advanced a large number of facts derived from common experience, physiological experiment, pathology, and clinical medicine, in favor of what I termed a theory of *constant neuro-trophic influence*.

Briefly, this theory was to the effect that in mammals, if not also in some lower groups of vertebrates, the nutritive processes are all under a *constant* regulative influence by the nervous system, in the sense that they are so dependent upon this influence that they do not, and would not, go on without it. It was also pointed out that function was not a thing totally distinct and alone regulated by the nervous system, but that function was only one *phase* of a general metabolism, and was no more under the influence of the nervous centres than the other less recognized phases.

A year's additional study of the subject has convinced me more than ever of the necessity of widening our views of the relation of the various organic processes, so that instead of terming the theory, I would offer for your consideration one setting forth a constant neuro-trophic influence, I would replace it by the expression *constant neuro-metabolic influence*, as it implies a wider and truer conception of the subject, as I view it; and I am not sure but that it would be well to abandon the term "nutrition" altogether, or, if not, certainly to define it afresh.

* Read before the section in Physiology of the Congress of American Physicians and Surgeons, at its first annual meeting, September, 1888.

The following, then, is a brief presentation of the subject in a form largely free from technicalities.

This subject is of the utmost importance, and has not received the attention hitherto in works on physiology to which we believe it is entitled. We may first mention a number of facts on which to base conclusions:—

(1) Section of the nerves of bones is said to be followed by a diminution of their constituents, indicating an alteration in their metabolism.

(2) Section of the nerves supplying a cock's comb interferes with the growth of that appendage.

(3) Section of the spermatic nerve is followed by degeneration of the testicle.

(4) After injury to a nerve, or its centre in the brain or spinal cord, certain affections of the skin may appear in regions corresponding to the distribution of that nerve, thus, *herpes zoster* is an eruption that follows frequently the distribution of the intercostal nerve.

(5) When the motor cells of the anterior horn of the spinal cord, or certain cells in the pons, medulla, or crus cerebri, are disordered, there is a form of muscular atrophy which has been termed "active," inasmuch as the muscle does not waste merely, but the dwindling is accompanied by proliferation of the muscle nuclei.

(6) In *acute decubitus*, bed-sores form within a few hours or days of the appearance of the cerebral or spinal lesion, and this with every precaution to prevent pressure or the other conditions that favor the formation of such sores.

(7) After section of both vagi, death results after a period varying in time, as do also the symptoms, with the animal.

In some animals pneumonia seems to account for death, since it is found that if this disease be prevented, life may at all events be greatly prolonged.

The pneumonia has been attributed to paralysis of the muscles of the larynx, together with loss of sensibility of the larynx, trachea, bronchi, and the lungs, so that the glottis is not closed during deglutition, and the food finding its way into the lungs

has excited the disease by irritation. The possibility of vaso-motor changes is not to be overlooked. In birds, death may be subsequent to pneumonia or to inanition from paralysis of the oesophagus, food not being swallowed. It is noticed that in these creatures there is fatty (and sometimes other) degeneration of the *heart*, liver, stomach and muscles.

(8) Section of the trigeminus nerve within the skull has led to disease of the corresponding eye. This operation renders the whole eye insensible, so that the presence of offending bodies is not recognized, and it has been both asserted and denied that protection of the eye from such irritation prevents the destructive inflammation.

With the loss of sensibility there is also vaso-motor paralysis; the intra-ocular tension is diminished, and the relations of the nutritive lymph to the ocular tissues is altered. But all disturbances of the eye, in which there are vaso-motor alterations, are not followed by degenerative changes.

(9) Degeneration of the salivary glands follows section of their nerves.

(10) After suture of long-divided nerves, indolent ulcers have been known to heal with great rapidity.

This last fact especially calls for explanation. It will be observed, when one comes to examine nearly all such instances as those referred to above, that they are complex. Undoubtedly, in such a case as the trigeminus or the vagi, many factors contribute to the destructive issue, but the fact that many symptoms and lesions are concomitants does not of itself negative the view that there may be lesions directly dependent on the absence of the functional influence of nerve fibres over the metabolism.

We prefer, however, to discuss the subject on a broader basis, and to found opinions on a wider survey of the facts of physiology.

After a little time (a few hours), when the nerves of the sub-maxillary gland have been divided, a flow of saliva begins, and is continuous till the secreting cells become altered in a way visible by the microscope.

Now, we have learned that protoplasm can discharge all its functions in the lowest forms of animals and in plants, independently of nerves altogether.

What, then, is the explanation of this so-called "paralytic secretion" of saliva? The evidence that the various functions of the body, as a whole, are discharged as individual acts, or series of acts, correlated to other functions has been abundantly shown; and looking at the matter closely, it must seem unreasonable to suppose that this would be the case if there was not a close supervision by the nervous system over even the details of the processes. We should ask that the contrary be proved rather than that the burthen of proof should rest on the other side. Let us assume that such is the case; that the entire behavior of every cell of the body is directly or indirectly controlled by the nervous system in the higher animals, especially mammals, and ask, What facts, if any, are opposed to such a view?

We must suppose that a secretory cell is one that has been, in the course of evolution, specialized for this end. Whatever may have been the case with protoplasm in its unspecialized form, it has been shown that gland cells can secrete independently of blood supply, when the nerves going to the gland are stimulated. Now, if these cells have learned, in the course of evolution, to secrete, then, in order that they shall remain natural—not degenerate—they must, of necessity, secrete, which means that they must be the subject of a series of metabolic processes, the final of which only is expulsion of formed products. Too much attention was at one time directed to the latter. It was forgotten, or, rather, perhaps, unknown, that the so-called "secretion" was only the last of a long series of acts of the cell. True, when the cells are left to themselves, when no influences reach them from the stimulating nervous centres, their metabolism does not at once cease. As we view it, they *revert* to an original ancestral state when they performed their work, lived their peculiar individual life as less specialized forms, wholly or partially independent of a nervous system. But such divorced cells fail; they do not produce normal saliva: their molecular condition goes wrong at once, and this is soon followed by departures visible by means of the microscope. But just as secretion is usually accompanied by excess of blood, so most functional conditions, if not all, demand an unusual supply of pabulum. This

is, however, no more a cause of the functional condition than food is a cause of a man's working. It may hamper if not digested and assimilated.

It becomes, then, apparent that the essential for metabolism is a vital connection with the dominant nervous system.

It has been objected that the nervous system has a metabolism of its own, independent of other regulative influence, but in this objection it seems to be forgotten that the nervous system is itself made up of parts which are related as higher and lower, or, at all events, which intercommunicate and energize one another.

We have learned that one muscle cell has power to rouse another to activity, when an impulse has reached it from a nervous centre.

Doubtless this phenomenon has many parallels in the body, and explains how remotely a nervous centre may exert its power. It enables one to understand, to some extent, many of those wonderful co-ordinations (obscure in detail) which are constantly taking place in the body.

We think the facts, as they accumulate, will more and more show, as has been already urged, that the influence of blood pressure on the metabolic (nutritive) processes has been much over-estimated. They are not essential, but concomitant in the highest animals.

Turning to the case of muscle, we find that when a skeletal muscle is tetanized, the essential chemical and electrical phenomena are to be regarded as changes differing in degree only from those of the so-called resting state.

There is more oxygen used, more carbonic anhydride excreted, etc. The change in form seems to be the least important from a physiological point of view. Now, while all this can go on in the absence of blood, or even of oxygen, it cannot take place without nerve influence or something simulating it.

Cut the nerve of a muscle, and it undergoes fatty degeneration and atrophy. True, this may be deferred, but not indefinitely, by the use of electricity, acting somewhat like a nerve itself, and inducing the approximately normal series of metabolic changes. If, then, the condition when not in contraction (rest)

differs from the latter in all the essential metabolic changes in rate or degree only, and if the functional condition or accelerated metabolism is dependent on nerve influence, it seems reasonable to believe that in the resting condition the latter is not withheld.

Certain forms of paralysis (*e.g.*, hysterical) are not followed by atrophy. Why? Because in this form the metabolic nerve influence is still exerted.

The recent investigations on the heart make such views as we are urging clearer still. It is known that section of the vagi leads to degeneration of the cardiac structure. We now know that this nerve contains fibres which have a diverse action on the metabolism of the heart, and that according as the one or the other set is stimulated, so does the electrical condition vary; and everywhere, so far as known, a difference in electrical condition seems to be associated with a difference in metabolism, which may be one of degree only, perhaps, in many instances, still a difference. The facts, as brought to light by experimental stimulation, harmonize with the facts of degeneration by the cardiac tissue on section of the vagi; but this is only clear on the view we are now presenting that the action of the nervous system is not only universal, but that it is *constant*; that function is not an isolated and independent condition of an organ or tissue, but a part of a long series of metabolic changes. It is true that one or more of such changes may be arrested just as all of them may go on at a less rate, thus, actual outpouring of pancreatic secretion is not constant; but secretion is not summed up in discharge merely, and on the other hand it would seem that in some animals the granules of the digestive glands are being renewed while they are being used up in secreting cells. The processes may be simultaneous or successive. Nor do we wish to imply that the nervous system merely holds in check, or, in a very general sense, co-ordinates processes that go on unoriginated by it. We think the facts warrant the view that they are in the highest mammals, either directly (most) or indirectly originated by it; that they would not take place in the absence of this constant nervous influence.

The facts of common observation, as well as the facts of disease, point in the strongest way to such a conclusion.

Every one has experienced the influence on, not one, but many functions of the body, we might say the entire metabolism of depressing or exalting emotions. The failure of appetite, loss of flesh and mental power under the influence of grief or worry, tell a plain story. Such broad facts are of infinitely more value in settling such a question as that now discussed than any *single* experiment.

The best test of any theory is the extent to which it will explain the whole round of facts. Take another instance of the influence over metabolism of the nervous system.

Every athlete knows that he may overstrain, *i.e.*, he may use his muscles so much as to disturb the balance of his powers somewhere, very frequently his digestion, but often there seems to be a general break—the whole metabolism of the body seems to be out of gear. If we assume a constant nervous influence over the metabolic processes, this is comprehensible. The centres can produce so much only of what we may call nervous force, using the term in the sense of directive power, and if this be unduly diverted to the muscles, other parts must suffer. The same holds of excessive mental application.

On this view, also, the value of rest or change of occupation becomes clear. The nervous centres are not without some resemblance to a battery; at most the latter can generate only a definite quantity of electricity, and if a portion of this be diverted along one conductor, less must remain to pass by any other.

It is of practical importance to recognize that, under great excitement, unusual discharges from a nerve centre may lead to unwonted functional activity; thus, under the stimulus of the occasion, a man may in a boat-race originate muscular contractions he could not by the strongest efforts of his will cause under other circumstances. Such are always dangerous. We might speak of a reserve or residual nerve force, the expenditure of which results in serious disability. It also applies to mental and emotional effects, as well as muscular, and seems to us to throw light upon many of the failures and successes (so-called) in life.

It seems that our past views of secretion and nutrition have been partial rather than erroneous in themselves, and it is a

question whether it would not be well to substitute some other terms for them, or, at least, to recognize them more clearly as phases of a universal metabolism. We appear to be warranted in making a wider generalization.

To regard processes concerned in building up a tissue as apart from those that are recognized as constituting its function seems to be illogical and unwise, with the knowledge we at present possess.

Whether, in the course of evolution, certain nerves, or, as seems more likely, certain nerve fibres in the body of nerve trunks have become the medium of impulses that are restricted to regulating certain phases of metabolism, as, *e.g.*, expulsion of formed products in gland cells, is not, from a general point of view, improbable, and is a fitting subject for further investigation. But it will be seen that we should regard all nerves as "trophic," in the wider sense. What is most needed, apparently, is a more just estimation of the relative parts played by blood and blood-pressure, and the direct influence of the nervous system on the life-work of the cell.

These views are greatly strengthened by the facts well known to every observer of disease in the human subject. The preponderating development of the cerebrum in man must be taken into account in the working of every organ. To have a normal stomach, liver, kidneys, etc., is not enough; for real health, all the parts of that great complex of organs we call the brain must not only work, but work in concert. We must regard the nervous centres as the source of ceaseless impulses that operate upon all parts originating and controlling the entire metabolism, of which what we term functions are but certain phases, parts of a whole, but essential for the health or normal condition of the tissues. Against such a view we no facts, either of the healthy or disordered organism.

RETRO-PHARYNGEAL ABSCESS.

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(Read before the Medico-Chirurgical Society of Montreal.)

Abscess in the retro-pharyngeal cellular tissue is of comparatively infrequent occurrence. From its position it is very apt to give rise to the most alarming symptoms. Partly from the fact that the greater number of these cases occur in young infants, in whom the pharynx is often difficult to inspect, and partly that, owing to their infrequency, the practitioner is off his guard, the number of reported cases in which the true state of affairs has escaped recognition, till almost too late, is numerous. If they serve no other purpose than as reminders, the following notes may be of some interest:—

CASE I.—Alice H., aged ten months, inmate of the St. Margaret's Nursery, a poorly-nourished, anæmic infant, bottle-fed since two months old, had been under treatment for the previous six weeks, suffering from digestive disorders and from a succession of small furunculæ appearing in various parts of the body, especially about the scalp. On March 17 she had a convulsion, for which the usual remedies were employed. At my visit the following day a careful examination was made, without detecting much at fault. The nares were blocked up with a catarrhal discharge; there was a slight cough and frequent sneezing, with a temperature of 102°F. I supposed the symptoms to indicate the onset of an attack of pertussis, of which we had already several cases in the building. The infant remained somewhat feverish and very restless for the following six days, without change in the general symptoms, but evidently failing in nutrition. On the 25th I was informed that it had refused its food, being apparently unable to swallow. Its cry was faint; there was considerable retraction of the epigastrium and lower ribs on inspiration. A few large râles were heard at both bases, but insufficient to account for the retraction. There was slight enlargement of the cervical glands, especially on the right side. The temperature was 101°. On inspection of the throat I found the pharyngeal

mucous membrane pressed forward, redder than usual, and quite filling the upper part of the pharynx. On examination with my finger, a firm, elastic swelling was detected, whose margin I was unable to define accurately, but which did not seem to extend far down. As the symptoms were urgent, a carefully-guarded bistoury was at once passed in, and vent given to a small quantity of purulent matter by a vertical slit. For the few following days I made gentle pressure with my finger from below upward, and endeavored, as West* suggests, to press out any remaining pus. The infant was put on cod-liver oil and irca wine, and, as far as the abscess was concerned, made a good recovery.

For the notes of the following case I am indebted to Dr. Geo. Ross :

CASE II.—A. M., aged eight months, on 24th of December, 1887, having been apparently up till this time in perfect health, was seized with a violent convulsion. On examination, no cause for the convulsion was obtained. The infant passed a restless night, notwithstanding the administration of laxatives and bromide, and when seen next day was found crying, evidently in pain. There was slight fever, but he nursed and drank freely. For five or six days there was little alteration in the symptoms. The fever remained ; the infant got little sleep, and was evidently sick, but the diagnosis remained obscure. At the end of that time he rather suddenly developed a difficulty in swallowing, and shortly afterwards refused his food altogether. While lying back he made a gurgling sound like a person gargling. The throat was inspected, but nothing abnormal was detected ; only a quantity of frothy salivary fluid was seen on the fauces. A consultation with Dr. Blackader was arranged for ; but, on arriving next morning, we were informed that, a few hours previously, the baby had regurgitated with violence through mouth and nares a considerable quantity of pus. On examination, pus was seen welling up freely from the pharynx into the mouth, and some of it escaping through the nostrils. There was immediate relief to all the symptoms, and the child soon appeared quite well. Ten days afterwards some enlarged glands were detected on the side of

* Diseases of Infancy and Childhood, sixth edition, London, 1874, p. 601.

the neck. These went on to suppuration and were opened by Dr. Shepherd, with antiseptic precautions. They soon healed, and a complete recovery at once followed.

For the following notes I am indebted to Dr. Shepherd :

CASE III.—A. R., aged nine months, female, had been noticed for a week previous to swallow with difficulty and cough considerably after doing so. There had been decided pyrexia. On examination, a large fluctuating tumor was found protruding from behind the pharynx into the throat. Fluctuation was also readily made out behind the sterno-mastoid on the left side, where a distinct swelling could be seen. Considering the size of the tumor, it was deemed wiser to open it externally, after Hilton's method.* A small incision was made through skin and fascia, behind the middle of the left sterno-mastoid muscle. A director was then thrust in towards the pharynx, and a quantity of creamy pus oozed out. A pair of dressing forceps was then introduced (closed) through the opening, and, when in the sac, opened, and withdrawn open. Several ounces of pus were evacuated. Drainage was secured. No caries of the vertebræ was detected. The sinus discharged a good deal of thin, watery pus for some weeks.

Dr. Geo. Major has kindly furnished me with the facts of the following cases. One occurred in a child of four years as a sequel of measles ; the difficulty of breathing and swallowing was very great, but was immediately relieved on incision and evacuation of the pus. A similar case occurred after cerebro-spinal meningitis. A third case was in an infant under a year old ; the abscess was supposed to be the result of an ordinary influenza. And a fourth case occurred in an infant of six months secondary to a tonsillitis ; immediate relief was given on the evacuation of a considerable amount of pus.

Formerly the view was entertained that abscess in the pharynx was nearly always symptomatic of spinal caries. This view has now been quite abandoned, as statistics show that the great majority of all the cases are idiopathic and occur in infancy. Among the more recent contributions to our knowledge of this affection perhaps the most valuable have been those of Bokai,† who, in

* "Rest and Pain," Am. edition, New York, 1879, pp. 76.

† "Ueber Retropharyngeal Abscess bei Kindern," *Jahrb. fur Kinderheilkunde*, Wien, 1857, 1876, und 1881 (durch Alexy).

his two papers, has given us the statistics of 204 cases, which were observed at the Children's Hospital at Pesth, between the years 1854-80, in a total attendance during that period of nearly 150,000 patients. Of these 204 cases, 189 were of the idiopathic form, 7 were secondary to caries of the vertebræ, 7 were secondary to burrowing of pus from abscesses in the neck, and 1 was traumatic. The great majority of these cases occurred under two years; 196 out of the 204 occurred under three years. In 97 cases collected by Gautier* nearly one-third of the patients were infants under one year, and Henoch says almost all his cases affected children who were in the first year of life or very little older.† Cases arising from caries, tonsillitis, traumatism, and pus burrowing from other situations in the neck, are liable to occur at all ages. In his first paper, Bokai referred the idiopathic form of these abscesses to a phlegmonous inflammation of the connective tissue, but later investigations have indicated a dependence on a lymphadenitis, and Bokai advocates this view in his last paper. Dr. J. O. Roe, in a very exhaustive paper (to which I am indebted for many of my facts) read before the Laryngological Society at its annual meeting in 1884, also urges this view, but Dr. Lefferts,‡ in replying to the paper, regards idiopathic form of abscess "as probably due to a simple phlegmonous inflammation of the cellular tissue arising from causes which produce similar abscesses elsewhere." Henoch§ thinks that the assumption that they start primarily in the lymphatic glands situated in front of the vertebræ is not by any means positively determined: and Baginsky says, "While we can with Bokai distinguish idiopathic abscess from that secondary to supuration elsewhere, we would agree with Kormann that inflammation arising primarily in the glands is very rare, and that both the chronic swellings of the glandular tissue and the acute abscess-forming lymphadenitis are not really idiopathic, but are the result of morbid processes occurring in either the mucous or serous membranes of one of the cranial cavities."||

Chronic rhinitis and inflammation of the mucous membrane in

* "Des Abscès Retropharyngiens," Genève et Basle, 1870.

† "Diseases of Children," Am. ed., 1852, pp. 59.

‡ Trans. Laryngol. Soc., 1884.

§ Loc. cit.

|| Lehrbuch der Kinderkrankheiten, Dr. Adolf Baginsky, 1887.

the neighborhood of the fauces appear to act as exciting causes, and there can be little doubt that those constitutional states which predispose to inflammation of the lymphatic glands in general have an important influence. Of these the scrofulous diathesis is by far the most important. Hereditary syphilis has been noted only in a few cases. A certain percentage of cases have been recorded as occurring after scarlet fever, measles, and other specific fevers. In such cases prolonged or severe inflammatory conditions of the nasal mucous membrane appear to favor the occurrence of abscess. Dr. Lewandowsky, in an interesting paper,* gives the history of two cases occurring after scarlet fever. In the first case, the infant, a year old, was taken ill with what was apparently a not very severe type of the disease, although two other children in the house had died of the malignant form. There was early severe inflammation about the posterior nares, but the fauces did not suffer severely. Convalescence was slow and variable. In the fourth week from the onset, without any special symptoms, a fluctuating swelling was noticed to the left of the median line of the pharynx. An incision was made into it, and about half an ounce of thin, purulent matter escaped. This was followed by rapid recovery. The second case was that of an infant of seven months. The catarrhal symptoms in the fauces were slight, but there was a copious mucopurulent discharge from the nares. Convalescence proceeded slowly, when, on the tenth day, a peculiar snorting respiration came on. On examining the fauces a swelling was seen, which fluctuated on pressure. An incision was made into it, and pus escaped. The infant soon recovered completely. The author remarks on these cases that they were on one side only. They ran a subacute course, and presented none of the symptoms of suffocation or dysphagia, which occur in more acute cases. On this account they were liable to be overlooked. The frequency of the occurrence of such cases appears to be variable, for Dr. Schmitz did not find one case in 450 cases of scarlet fever in the St. Petersburg Children's Hospital, while Dr. Bokai gives seven cases out of 644 cases in the Children's Hospital in Pesth. Vio-

* Berliner Klin. Wochenschr., No. 8, February 20, 1882.

lent phlegmons of the throat appear rarely to give rise to this form of abscess, but suppuration in the tympanic cavity in children is pointed out by Wiel* as a not infrequent cause. Dr. Roe, quoting him, reports the case of a child, nine months old, that died from secondary œdema of the larynx. On post-mortem, suppuration in the ear was shown to have been the cause of the abscess. This same cause is referred to by several other writers.

The great majority of the cases of retro-pharyngeal abscess occur during the winter and spring months, probably because in those seasons catarrhal affections of the nose, pharynx and middle ear are most common.†

The abundance of glandulæ in this situation has long been recognized, but to Dr. Edmund Simon‡ we are indebted for our exact knowledge of the lymphatics of this region. He describes them as forming small networks on either side, which terminate in glands located one on each side of the median line, between the superior constrictor and the aponeurosis of the prevertebral muscles. After the third year of life these glands are said to disappear altogether,—a fact which, if corroborated, would indicate a close connection between the time of activity of these glands and the period when abscess is most liable.

Kormann, quoted by Eustace Smith, states that with his finger he has been able to detect enlargement of these glands in inflammatory affections of the pharynx and nares, and Bokai, in his statistics, adds that, in addition to the above quoted cases of abscess, he noticed sixty-three cases of lymphadenitis that did not terminate in suppuration.

The symptoms which should attract our attention are dysphagia, or inability to swallow, dyspnoea, cough, alteration of the voice, with, in most cases, more or less stiffness of the neck. This latter in infants frequently escapes notice. If the abscess has been allowed to attain any size, some fulness behind the angle of the jaw may be detected. The symptoms will vary a good deal with the position of the abscess. If principally in the upper part, deglutition will be mainly interfered with; if it ex-

* Monatschrift f. Ohrenheilkunde, Berlin, 1881, Bd. xv. s. 43.

† Baginsky, Lehrbuch der Kinderkrankheiten, s. 622. Braunschweig, 87.

‡ Schmidt's Jahrb., Bd. cvii, s. 161.

tends lower, respiration will more or less suffer; while, if it be still lower, becoming post-oesophageal rather than post-pharyngeal, there may be little or no alteration in either, and the diagnosis will be very obscure. The dyspnoea is generally worse when the infant is in the recumbent position. Dr. L. M. Politzer* of Vienna says that a strongly-marked nasal or palate sound in an infant's or child's voice should always lead us to suspect and examine the pharynx for abscess; and Duparcque† states that in those cases where the abscess is seated so low down that it cannot be seen or felt, the voice assumes a shrill tone, and pressure made on the larynx or trachea produces severe pain, and sometimes entire suspension of respiration. Dr. Goix adds that the normal lateral gliding movement which the posterior edges of the thyroid have on the vertebral column is lost in retro-pharyngeal abscess, but may persist when the abscess occupies the retro-laryngeal space.‡

The amount of pain, pyrexia, and general disturbance depends somewhat on the course, whether acute or chronic, which the disease assumes. In the more acute cases the onset is sudden, and is frequently marked by vomiting or convulsions; the pain is severe; the fever is sometimes of a high grade, and the symptoms above referred to are pronounced. In those that run a more chronic course the onset is often insidious, the general disturbance much less, and the local symptoms are less urgent. A somewhat remarkable instance of this insidious and chronic course is related by Dr. Eustace Smith,§ where a child of three years was brought to the hospital for difficulty of breathing. The infant, when one year old, had suffered from enlarged glands in the neck, which went on to suppuration. Shortly afterwards the child's breathing had become oppressed, and respiration had been accompanied by a peculiar whistling noise, always worse at night. It had remained in this condition ever since. On examination, a swelling was seen at the back of the pharynx, which was punctured, and thick pus escaped. The child was promptly relieved.

* Am. Journal of Obstetrics, vol. xvii, p. 553.

† Annales d'Obstétrique, December, 1842, p. 242.

‡ Archiv. Gén. de Méd., October, 1832.

§ "Diseases of Children," New York.

Among the curiosities of the literature on the subject is the case quoted by Dr. J. Lewis Smith of an infant who died at the age of nine weeks, with the history of always having had much difficulty in nursing and swallowing. On post-mortem an abscess, with thick and firm walls, was found in the retro-pharyngeal tissues.

But the notable fact with which one is impressed on reviewing the literature is the frequency with which these cases remain undiagnosed, or receive a faulty diagnosis, sometimes till spontaneous rupture takes place, or death ensues either by inanition or suffocation. A few cases are reported where the abscess was not discovered till after the children had ceased breathing, but on opening it immediately, and employing artificial respiration, they recovered. The symptoms may resemble, and be mistaken for, those of catarrhal laryngitis, membranous croup, œdema of the glottis, and perhaps tonsillitis or a foreign body in the larynx. In all cases where the symptoms are suspicious, a careful inspection should be made in a good light, and followed by careful but gentle palpation. The index finger should be passed first to the back of the pharynx, then up behind the soft palate to the nasopharynx, and afterwards down as far as possible behind the larynx. None of these manœuvres are always easily managed in infants with narrow buccal and pharyngeal cavities. Mucus and regurgitated milk are liable to prevent thorough inspection, and the movements of the finger in the pharynx may give rise to severe attacks of suffocation, and, as Fleming has remarked, even to convulsions. Yet it is our only resource, and the attempt should be renewed. In such cases there can be little objection to quieting the child with a few whiffs of chloroform, or, preferably, a mixture of ether and chloroform.

The tumor, if seen early, is hemispherical or oval, and is generally situated a little to one side of the median line, and fluctuation in it can easily be made out. If desired, it may be opened while the infant is under the anæsthetic, provided due precautions are taken to prevent the entrance of pus into the larynx.

In regard to treatment there is but one correct course, and that is early incision. If this is postponed, pressure symptoms are liable to become serious at any moment, or should the abscess

burst spontaneously, death by suffocation is liable to occur, especially if the rupture takes place during sleep. Henoch* mentions a case in which a colleague desired to keep the child until the following day for demonstration, but paid for the delay by the death of the child by suffocation in this way during the night. Similar cases are reported by different writers. Perhaps the safest way of opening the abscess in children is to draw off the greater amount first by aspiration, then afterwards to relieve the remainder by a vertical incision. Others recommended the use of a large trocar and canula. Excepting, however, those cases where the abscess is very large, or low down, out of convenient reach, a well-guarded bistoury, in the absence of a pharyngotome, passed in along the edge of the finger, answers the purpose, but care should be taken to bend the head of the child quickly forward, so that the pus may run out of the mouth. The bistoury must be guarded to near the tip. Schmitz,† quoted by Roe, tells us of a case he attempted to open with a bistoury, when the tongue of the child slipped from under his finger and was severely cut. Copious hemorrhage ensued, and the life of the child was endangered.

If there is any tendency to pointing externally, Chiene's or, more properly, Hilton's proposition to open it externally should be adopted; and there is no better method than that adopted by Dr. Shepherd in my third case. When the opening has been made in the pharynx, West's suggestion to make pressure daily with the finger to evacuate any pocket of the pus is a good one. The child's diet had better be confined to milk entirely, while appropriate remedies are given for the general constitutional condition.

* Loc. cit.

† Jahrb. f. Kinderheilkunde, Leipzig, 1872, 1873.

Retrospect Department.

QUARTERLY RETROSPECT OF SURGERY.

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The Rational After-treatment of Surgical Cases.—This is the title of a most interesting paper which appears in the forty-fifth volume of *Guy's Hospital Reports* (1888) by C. H. Golding-Bird. Many surgeons give particular directions as to when and how to operate, but say very little about the after-treatment. Mr. Bird looks at the subject from the medical side, and says that however "pure" or special a surgeon may be, unless he is to be regarded as a mere operating machine, this side of the question must be studied. In speaking of spinal caries he says that when the patient is long since as well as he can ever be he often persists in wearing some spinal appliance, hoping thereby to better himself. The author holds it is kindest and wisest to tell such a patient to put aside his artificial aids and to face at once the "struggle for existence," and cease to buoy himself up with false hopes of further improvement. No doubt specialists (mechanical specialists in particular) are most to blame for this state of things. Continual tinkering with a case which never can be further improved tends to keep up a condition of invalidism and dependence on others which is very demoralizing to the patient. In the treatment of *lateral spinal curvature* the author has had a certain measure of success, but he considers this due to the throwing of the work of cure on the patient herself than by letting her imagine she was a passive item in the process; he knows no cure for this disease of which the major part is not the patient's own effort. Once let the Rubicon of hopeful *curative* treatment be passed, "and then, instead of consigning the case to the limbo of incurables, it may by scientific treatment be made to face its new condition of life and again take its place in the world with more or less activity." In the chronic after-treatment no rule can be laid down definitely; each case must be studied by itself.

After an operation the patient may have collapse with cold surface, which delays recovery ; this is often due to the anæsthetic not having been properly administered : it has been given too slowly whereby the patient gets saturated, or not continuously enough, so that the shock of the operation is physiologically appreciated though not consciously felt. Here the administration of alcohol by mouth and rectum is advisable, and also hot packing. In such cases vomiting may be expected ; idiosyncrasy has as much to do with this as with sea-sickness. To prevent sickness after operations Mr. Golding-Bird is in the habit of giving a half to one pint of warm water, or salt and water, to make the patient sick outright, and then to give immediately half a small biscuit or any solid at hand. This method he says rarely fails.

Anodynes are too frequently given after operation to allay pain ; position, support, relief from pressure, should be tried first in all suitable cases. When anodynes are necessary, none are worth considering beside opium, though he has learnt to fear it in severe collapse, as after nephrectomy ; here alcohol freely used is better. He prefers solid opium to morphine, and objects to the hypodermic use of the latter after operation ; the immediate effect is agreeable, but transient, and its frequent repetition rapidly develops a craving for it. The patient becomes the slave of the syringe, and the administrator soon becomes the slave of the patient. When pain is not the cause of insomnia after operations, simple soporifics should be given. In these cases the surface of the body is often bloodless and chilled, and the cavities engorged with blood ; the state of brain anæmia necessary to sleep is absent. In such cases the hot pack with blankets should be used till patient sweats, aid cutaneous vascular dilatation by alcohol or Dover's powder, and as soon as the skin moistens the feeling of restless misery disappears. Again, the patient may sleep in the early part of the night, but wakes in the early morning restless and uneasy. Such a condition is seen in exhausted and aged patients, and the cause is frequently an empty stomach. A hungry man cannot sleep. In such cases a very little solid food suffices ; half a biscuit will determine blood to the stomach and produce a feeling of comfort, just enough to turn the balance

in favor of sleep. Our author prefers oatmeal biscuits, because the more we can worry the mucous membrane of the stomach the more likely patient is to sleep. The supposed soporific effects of lettuce, as Lauder Brunton remarks, are due probably less to the lactacin than to the indigestible cellulose the man puts into his stomach at supper time. In cases, then, of morning restlessness give food, not drugs. In the old, if not given by the mouth it should be given by the rectum, and a renewal of hot bottles and blankets must be seen to, for temperature and pulse at this time are alike low, and for this reason, in the aged and exhausted, the early morning hour should be most dreaded. This explains why, as morning breaks, many cease to exist; life may be saved in some instances by proper treatment. Chloral is to be preferred as a soporific. Bromide of potassium depresses the patient and upsets the bowels. In an insomnic patient, the belief that a soporific is being given often induces sleep, hence the usefulness of pure water subcutaneously and the administration of the good old bread pill.

Rectal feeding is most valuable in after-treatment; it is far better to give the meal already peptonized. The following formula is recommended: Beef-tea, $\bar{3}i$; yolk of an egg; liq. pancreat., $\bar{5}i$; wine, $\bar{5}ss$; warm milk to $\bar{5}iii$, with a pinch of bicarbonate of soda. Drugs are added if required, or the wine is omitted. The enema should not exceed three fluid ounces, and must be given with a three-ounce ball syringe fitted with a four-inch gum-elastic nozzle, and be injected at one squeeze, without any admixture of air, the patient's buttocks being slightly raised. Firm pressure must be maintained on the anus for a minute after the withdrawal of the syringe. In this way the author has fed patients every four hours for days together without the slightest rectal irritation.

After a severe operation the patient can be most influenced through the skin. In collapse the skin is cold and bloodless, there is passive congestion of the viscera, and feeble heart's action. Knowing this, the treatment of this grave condition is indicated. Hot pack with blankets and bottles to the chin, do not even allow a hand out; when once cutaneous circulation is

established the patient is comfortable. In chloroform vomiting, when the skin is cold, this method is a valuable one. In speaking of peritonitis, Mr. Golding-Bird says patients do not die from the height of the fever. The case dies with cold extremities, passively suffused face, and a generally anæmic condition of the surface of the body. The patient vomits incessantly, and goes out like the snuff of a candle. It is very much like a death from exposure. The whole of the blood can be accommodated in the portal system. After perforation of the bowels, the condition is much like that of internal hemorrhage. The pulse is small, rapid, weak, the patient sighs and gasps for breath, struggles or craves for drink. He is really *bleeding to death into his portal area*.

After *abdominal operations* the author relieves the congested peritoneum. No ice or cooled drinks; nothing by the mouth. Enema above-mentioned, with opium and port-wine every three or four hours. The wine allays the craving for fluids at once; the opium allays peristalsis and pain, and assists the skin to act. Hot packing till sweating occurs, a pillow under the thighs, but not a hand above the bedclothes. The moment reaction sets in sleep will be obtained. This treatment should be adopted after all hernia operations.

In conclusion, the author states that the influence of the environment upon the patient is too often disregarded for the more easy and empirical administration of drugs, whilst rational influences lie ready to hand unnoticed.

Arthroctomy.—At a meeting of the Royal Medical and Chirurgical Society of London, held November 13th, 1888, Mr. Edward Owen read a paper on the above subject. He advised arthroctomy especially in cases of pulpy or chronic synovitis of the knee-joint, provided the bones were not implicated and that the patient was not the subject of general tuberculosis or of albuminoid degeneration. It had an advantage over excision, viz., that it took away from the articular surfaces only such tissues as were diseased.

In the discussion which ensued Mr. Bryant stated that he had performed similar operations as far back as 1866.

Mr. R. Parker thought, in young children, that arthroectomy was the preferable operation, and the cases best suited were those that had neither bone disease nor sinuses. He did not advise the removal of the crucial ligaments.

Mr. Owen said in reply that he found it impossible to thoroughly clean the back of the knee-joint unless the crucial ligaments were divided; their destruction was not of much moment, as a fixed joint, not a movable one, was desired.

Mr. Herbert Page has an elaborate article in the *Lancet* of Nov. 17, 1888, entitled *Arthroectomy v. Excision of the Knee*, in which he strongly advocates early operation and removal of the diseased structures by the knife or scissors. In arthroectomy nothing is sacrificed but the diseased structures, and the growing limb can be preserved in its natural length. In cases where arthroectomy has been performed there is improvement in the general health as soon as the diseased structures have been removed. In many early cases, where the disease is limited, a movable joint may be obtained, but the author is inclined to think that good, firm ankylosis is the thing for which we ought to strive; and it is therefore unnecessary to be particular about saving bits of the crucial ligaments which may prove to be healthy and to resuture the ligamentum patellæ. At best the operation is a long one, and the saving of time is of some moment to the patient. Mr. Page exposes the joint by the old horse-shoe incision, which curves below the patella.

Mr. G. A. Wright (*Lancet*, Dec. 1, 1888) claims that the operation of excision or arthroectomy has been in use in the Children's Hospital, Pendlebury, since 1881, and cases were published in the *Lancet* of that year. He thinks the operation more applicable to the knee joint, though he has performed it in the elbow and ankle. In the knee joint he advocates the transpatellar method, and drains through the back of the joint. The results in successful cases, Mr. Wright says, are better than in those of excision; there is no shortening either immediate or as growth goes on, while the results in other respects are like those of excision, for a firm, stiff, straight limb is obtained. The operation is applicable to those cases of disease that resist treatment

by rest, but are not so far gone as to require amputation, in fact the majority of cases which are now excised. The operation is chiefly applicable to children. He confesses to many failures in cases where excision was afterwards necessary, but the patient has never suffered from the double operation.

The following points are to be noticed : (1) Full exposure of every cranny in the joint. (2) Absolutely complete removal of all disease, scraping out any doubtful bony spots. (3) The crucial ligaments should be preserved if possible, as they tend to steady the joint afterwards. (4) The limb should be well fixed until healing is complete, then the patient may get about on crutches and a patten in Thomas' knee-splint, or with the limb fixed in plaster-of-Paris. (5) As in excision, flexion will occur unless the limb is kept fixed for from two to three years at least. (6) In some cases actual lengthening of the limb occurs after the operation, just as overgrowth not uncommonly follows necrosis from acute periostitis. Mr. Wright, since his series of 16 cases published in 1885, has had nine operations on the knee and one on the elbow ; out of these five have done well and three are yet incomplete.

Arthrectomy of Knee-joint in Children.—Dr. Mandry (Tübingen) says that resection of the knee-joint is now almost universally acknowledged an unjustifiable operation ; he advocates extirpation of the capsule and scraping out of any tuberculous foci. Incision is made over and through the patella or tendon of the quadriceps ; all diseased structures are removed, but no healthy cartilage or bone substance. The joint is irrigated with sublimate solution and the wound in soft parts and patella sutured with catgut. Watson's splint is applied, and finally plaster-of-Paris bandage. The results in seven cases were : in one, almost normal mobility of the joint ; in five, ankylosis ; and in another case the disease returned and excision had to be performed. The author has collected 63 cases operated on by Volkmann, König and others, and an analysis of these and his own brings him to the following conclusions : In 27 per cent. the operation was unsuccessful on account of recurrence of the disease, necessitating resection or amputation ; 63 per cent. were cured, and

in three cases elongation of the diseased extremity resulted. Slight degree of flexion is noticed in 53 per cent. Hoffa some years ago said that shortening of the limb was not greater after resection than after conservative treatment provided the epiphysis of the femur was not interfered with. Mandry is of opinion that arthrectomy gives better results; on the other hand, he acknowledges that after arthrectomy there exists a greater tendency to flexions. Of the 44 cases which did well after operation, eight recovered with movable joints.—(Quoted in *Annals of Surgery*, Dec., 1888, from *Beitrag zur Klin. Chirurgie, Klinik zur Tubingen*, Bd. iii, Hft. 2.)

There is no doubt that for many cases of knee-joint disease in children arthrectomy is the proper operation. It is less severe than excision, and, if successful, the patient recovers with a limb which is of the same length as its fellow; if it should fail, then excision may still be performed with benefit. The difficult questions to decide are, when to operate? and, how long should the treatment by rest be practised before arthrectomy is determined on? The many failures which follow arthrectomy are due to the surgeon not having completely removed the diseased tissue, and any one who has performed this operation will understand the great difficulty of knowing when all disease is removed. The disease is certain to recur if any diseased structures are left. Excision, whilst a more radical operation, necessitates the removal of much healthy tissue along with the diseased, and, besides, shortening necessarily results. The method of excision introduced by Dr. Fenwick of Montreal, and practised by Kocher of Berne, whilst it leaves intact the epiphysial line and so does not interfere with future growth, preserves the length of the limb at the time, many of the cases recovering with a shortening of half an inch. Dr. Fenwick's method* is to round off the end of the femur and to make a slight concavity in the upper end of the tibia for the femur to fit into; only a thin slice of bone is removed with a fine fretwork saw. In this way the position of the limb is maintained with but slight loss of bone.

* See Ashurst's International Encyclopædia of Surgery, vol. iv.

Primary Union after Excision of Tubercular Hip Joints.—

At the meeting of the Royal Medical and Chirurgical Society of London, held December 11th, 1888, two papers were read on Primary Union after excision of Tubercular Hip Joints, by Mr. Barker and Mr. Bilton Pollard. (*Lancet*, Dec. 15th, 1888.)

Mr. Barker stated that his conclusions were as follows: (1) That scrofulous, or, in other words, tubercular joint disease was a local expression of infection of the tissues with the bacillus tuberculosis, and ran, as a rule, a course beginning in hyperplasia and ending in fatty degeneration. (2) That at a certain stage of the disease the complete removal of the infected tissues ought to be possible. (3) That if complete removal of the tubercular tissue from the hip be accomplished, the resulting wound ought to heal in many instances by first intention throughout, as in the case of the knee, and often even without any necessity of drainage. The author then described a case which was operated on some months before. The patient was a boy, aged five years, who had been under treatment for hip disease for a year; this had resulted in necrosis of the head of the femur and abscess. The child was operated on, primary union resulted, and patient left hospital on the fourteenth day wearing a double 'Thomas' splint, which was removed on the eighth week after operation. The child began then to run about, and has been quite well ever since. The case was exhibited.

Mr. Pollard drew attention to the fact that the wounds necessary for extirpation of tubercle from joints would heal as rapidly and as permanently as other wounds of a similar size if essential conditions were secured. (1) The whole of the tubercular growths must be removed. (2) Perfect asepsis must be assured. (3) Bleeding must be checked and the wound made as dry as possible. (4) Oozing must be restrained by the even elastic support of a wool dressing and a moderately tight bandage. (5) Absolute rest of the part must be maintained during the process of healing. Four cases of hip joint disease operated on by the author were referred to; three were operated on by the anterior incision and one by a curved incision round the upper and posterior part of the trochanter. No drainage was employed.

The dressings were removed on the seventh day and the wounds found completely healed. In one case where there was perforation of the acetabulum the disease recurred, the others recovered well, and were exhibited at the meeting.

In the discussion which followed the reading of the paper nearly all the surgeons condemned early excision ; treatment by rest and extension was advocated, and the results were stated to be better. Early excision was apt to be followed by recurrence of the disease or a badly developed limb. Mr. Croft looked upon this form of treatment with healing by first intention as marking a new epoch in surgery. Mr. Wright of Manchester stated that he had 800 cases of hip-joint disease under his care during the last few years, and had performed excision 130 to 140 times ; he preferred section of the bone through the trochanter rather than above it. It was necessary, after excision, to keep the joint at rest with a Thomas' splint for six months or a year. Mr. Hulke said it was interesting to hear that synovial membrane could be thoroughly removed by scraping through the small anterior incision, especially as in arthrectomy of the knee-joint a large incision was necessary to thoroughly clear away the diseased tissues. The anterior incision was first introduced years ago by Hueter of Greifswald.

Early excision of the hip-joint with union by first intention is apparently a revelation to London surgeons, although it has been practised for years by Volkmann of Halle and Macewen of Glasgow. The latter's success in these cases is marvellous, and cure in one dressing is the rule. I saw many of his cases in 1887, and was amazed at the rapid recovery ; children six weeks after excision could go about and flex and extend the excised hip as well as the healthy one. Macewen's work on the surgery of joints appears to be as little known in London as were his operations on the brain and spinal cord, until his epoch-making paper of last year was read at the meeting of the British Medical Association.

The after condition of cases which have been the subject of early operation is important, and no certain information is published on this point. Are the limbs of these children after, say,

ten years as serviceable as when the treatment by rest and extension has been practised? Volkmann is not so enthusiastic now as he was some years ago about early excision of the hip. The after-results of his cases were not as satisfactory as regards the condition of the limb as could be wished. The early operation, and, in fact, every operation for excision of the hip-joint is better performed by the anterior incision introduced by Hueter in 1878. It commences in front of the thigh half an inch below the anterior superior spine of the ilium and runs downwards and a little inwards for three inches. The incision goes down between the tensor fasciæ and rectus femoris muscle, and no muscular fibres need to be divided. When the joint is reached the neck of the femur is sawn across, the diseased head lifted out, and the remaining diseased tissue gouged out with a strong spoon. The wound should be thoroughly irrigated and not sutured until all bleeding has ceased. According to Dr. Barker (*Brit. Med. Jour.*, Jan. 14th, 1889) this method of treatment has many advantages. The operation is free from danger, the limb is but little shortened, and the cure is attained in as many weeks as it previously required months. Mr. Barker claims great credit for advising flushing of joints during and after operation with hot water, and thinks this has not been used before. The practice is not a new one, and is one which would naturally occur to most surgeons. It has been frequently made use of in the Montreal General Hospital and many other hospitals. His flushing gouge is no doubt an original idea, but, as far as I can see, possesses no special advantages. This gouge is hollow, and has attached to its handle the rubber tube of the irrigator, so that the cutting edge of the gouge receives the full force of the water-stream rushing through the handle. The technique of the operation described by Mr. Barker is that which has been followed by German and American surgeons for several years past.

Partial Resection of Symphysis Pubis in Operations on the Bladder.—Dr. Helferich, at the seventeenth congress of German surgeons, held last April, read a paper on the above subject. (*Beilage zum Centralblatt für Chirurgie*, 1888, No. 24.) He has removed a portion of the symphysis pubis in three cases in

order to more readily reach the bladder. In one case the condition necessitating the operation was tuberculous caries of the symphysis itself; in the others it was carcinoma of the bladder and great enlargement of the middle lobe of the prostate. He makes a transverse incision and pushes back the soft parts; after reaching the bone he divides it on either side, perpendicularly, to the necessary depth with a broad sharp chisel, and then placing the chisel horizontally at the required level, and beginning at one of the perpendicular lines, he divides the symphysis from before backwards, carrying the chisel from each end of the exposed line to the centre. In the case of carcinoma, free access was obtained to the tumor which was in the upper aspect of the posterior wall. The tumor was removed and the healthy tissue on both sides. The bladder wound was sutured with catgut. There was considerable strangury for a few days, but it gradually diminished and healing was complete in three weeks. The case of prostatic enlargement died in eight days after operation, but the case was an unfavorable one. The operation is an easy one, and is suitable for cases of large malignant tumors, some forms of prostatic hypertrophy, excessively large stones and encysted stones, rupture of the bladder, etc.

Dr. P. Niehans of Berne (*Centralblatt f. Chirurgie*, No. 29, 1888) describes a new operation for exposing the bladder somewhat similar to that of Helferich. He makes a vertical incision through the soft parts in the linea alba till the root of the penis is reached, and then the incision is directed to the part in which it is intended to remove the bone, reaching down in the direction of the rami of the pubis and ischium; the soft tissues are pulled aside, the periosteum carefully elevated, the ascending ramus of the ischium is divided with a chisel, then a small incision is made in the horizontal ramus of the pubic bone immediately to the inner side of the crural vein, and the attached pectineus and periosteum removed; then the ramus is carefully divided with a chisel, the symphysis is divided with a knife or chisel, and after separating the soft parts the piece of bone is turned down and the bladder is exposed to view. Several excellent illustrations explain the method of operating. Dr. Niehans has only

operated on one case so far—a woman, aged 38, with a focal fistula over Poupart's ligament. There was also fæces and pus in the urine. The patient was much reduced. The osteoplastic operation above described was performed; a fistulous opening into the bladder large enough to admit a finger and a tuberculous ulceration were found. The opening was excised and sutured, the bone replaced and fixed in position by catgut sutures through the symphysis. The patient recovered well from the operation, and although the replaced bone gave way, and had to be kept in place by a girdle, and fæces still came through the wound, the patient remained in good condition. The author states that the further course of the case is yet to be reported, but the fact is proved that the operation is feasible, easy of performance, and without danger.

Statistics of Operations on the Gall-bladder.—Dr. A. Depage, in the course of a paper on surgical intervention in biliary lithiasis (*Jour de Med. Brux*, 1888, No. 24), says that up to the present time there have been 78 cholecystotomies performed. Of these, 6 were done according to the method of Spencer Wells and 72 with suture of the gall-bladder to the abdominal wall. Of the first named series, 3 died from acute peritonitis, 1 cured case was followed by recurrence, and 2 cases were completely cured. In the second series there were 11 deaths, 5 from hemorrhage and collapse, 2 from biliary retention, 2 from effusion of bile into the peritoneum, and 2 from undetermined cause; there were also 4 deaths from secondary complications. Amongst the cures were 24 cases of biliary fistula, some permanent. The number of cholecystectomies has been 22, with 2 deaths from obstruction of the bile ducts and 1 after recovery from the operation from causes independent of the biliary lithiasis. Thus in cholecystotomy with suture of the gall-bladder and its return free into the abdominal cavity a mortality of 50 per cent. resulted; in cholecystotomy with suture of the bladder to the parietes 15.27 per cent.; and in cholecystectomy 9.99 per cent. And as the last-named figure comprises two cases of permanent occlusion of the common bile duct, the result, if they be excluded, is greatly to enhance the position of cholecystectomy as an operation to be preferred to cholecystotomy.—(Quoted in *Lancet*, Jan. 12, 1889.)

A Contribution to the Surgery of the Spine.—Dr. Robt. Abbé (*New York Medical Record*, Feb. 9th, 1889) reports two cases of operation upon the spine. The first is a case of *extra-dural tumor of the spine*, with complete paraplegia. Patient, aged 22, was in perfect health up to January of last year, when pain in the back first appeared. In March there was some fullness and tenderness on pressure in the soft parts to the right of the ninth and tenth dorsal spines. Four weeks later swelling of the soft parts had markedly increased, and tactile sensibility began to be disturbed in both legs, then there was failure of muscular power. Two weeks later he could not stand without support, then power in the legs rapidly disappeared. The spine became rigid and painful, the abdomen tender and hyperæsthetic, and the legs absolutely anæsthetic. By May 25th the condition had become serious. There was considerable hectic fever and the patient lay in an apathetic condition, suffering from the slightest motion of the spine and with girdle and intercostal pains unabated, so operation was decided upon. An incision was made six inches long close to the spines, from sixth to twelfth dorsal. The laminae being uncovered, some thick broken-down tissue and pus were scraped away; the laminae were already bare of periosteum, and the spines and laminae of the eighth, ninth and tenth were cut away by forceps. This revealed a dense mass of tissue and desiccated pus occupying the entire calibre of the canal, and extending up and down in all two and a half inches. This compressed the cord firmly against the anterior wall. It was thoroughly and rapidly removed by a sharp Volkmann's spoon until sound bleeding tissue was left on every side. The cord was not seen to pulsate. The cavity was packed with iodoform gauze, and an antiseptic dressing and plaster-of-Paris bandage applied. On the eighth day sensation began to return. In the fourth week he began to move his left leg and toes of his right. In four weeks he moved both legs well. In four and a half weeks he walked pushing a chair. When the patient was exhibited to the Surgical Society of New York eight months after operation he was stout and healthy, and walked well. The tumor was examined for tubercle bacilli, but none found.

The second case was that of a man aged 24, who was suffering from a most intractable brachial neuralgia. The nerves were stretched, then the arm was amputated, without benefit, so finally the roots of the 6th, 7th and 8th cervical nerves were divided, with improvement in the symptoms. At first the nerve roots were cut outside the dura mater, but the day after operation, no relief being experienced, the patient was again operated on; the dura mater was slit up and explored, and the posterior roots of the 6th, 7th and 8th nerves were cut inside the dura mater. The dura mater was sutured, and the wound, which had at the first operation been packed with iodoform gauze, was now closed with sutures and united by first intention. He was much improved by the last operation, could walk steadily, and had less pain.

Removal of a Spoon from the Peritoneal Cavity.—This remarkable case has been of late exciting some interest in Paris. M. Le Dentu brought it before the meeting of the Academy of Medicine on January 8th. The patient, a young man aged 21, swallowed, unintentionally, a wooden spoon about twelve inches long; after swallowing it he dined as usual, and went to bed feeling perfectly well. About two in the morning he suffered severe pains and a sense of tearing in the region of the stomach. He went to hospital, and the house surgeons felt distinctly the foreign body above the umbilicus. Next day Le Dentu performed gastrotomy. On opening the stomach and introducing his finger no foreign body was found; the abdominal cavity was then searched and the spoon was found standing upright in the pelvis, one of its ends being in contact with the bladder. The spoon was removed and the man made an excellent recovery. The most careful examination could not detect the part of the stomach through which the spoon had passed.

Pneumotomy for Pulmonary Abscess.—In the *Vratch*, No. 38, 1888, p. 143, Prof. F. N. Opensovsky of Dorpat relates a strikingly successful case of pneumotomy for an enormous abscess of the right lung, with gangrene, in a man aged 30. The patient had enjoyed excellent health up to the middle of April, 1886, when, in consequence of exposure, he caught severe pleuro-

pneumonia, which ended in suppuration. Three weeks after the onset of the illness he expectorated a tumblerful of offensive pus. The suppuration steadily progressed, being accompanied by violent cough, hectic fever, and emaciation. About the middle of September signs of pulmonary gangrene appeared. Prof. W. Koch performed pneumotomy on Sept. 19th. Two pieces of the 5th and 7th ribs were excised between the anterior and posterior axillary lines. The pleura having been found firmly adherent, a thermo-cautery was plunged into the pulmonary tissue, striking the abscess cavity at a depth of two to three centimetres; this was followed by cough and the expulsion of a large amount of foetid pus. The cavity was large enough to allow Prof. Opensovsky to introduce his whole hand freely and move it about searching for the bronchial opening. Having removed several pieces of sloughing tissue, the operator enlarged the bronchus with the thermo-cautery and then freely cauterized the whole gangrenous focus, afterwards washing the cavity out with a weak solution of permanganate of potash. A drainage-tube was inserted and dressings applied. Irrigations were repeated twice daily for the first ten days, and afterwards once a day; the drainage-tube was removed Oct. 26th. On Dec. 8th patient was discharged well. A year after the man was perfectly well, and no fistula remained. He was gaining his living as a hospital porter.

The Application of Extension in Potts' Disease and Vertebral Injuries.—Dr. H. C. Wood recently, at the University Hospital of Philadelphia, showed and explained a method of treatment applicable to cases of Potts' disease and fractures of the spinal column which he believed to be novel. (*Medical News*, Jan. 19th, 1889.) After speaking of Prof. J. K. Mitchell's treatment of these cases many years ago by swinging from the head, and alluding to the treatment by the plaster jacket, Dr. Wood said that it had occurred to him that the spinal jacket might be used for purposes of extension. The chest of a well-shaped man is an inverted cone, and any upward strain upon the jacket would be received, not upon any one point, but upon numerous points on the surfaces of the wall. He therefore had

a jacket made with loops from which the patient could be suspended. The making of the loops is very simple; after the first layer of the jacket is put on, a strong linen bandage is placed at the lateral lower edge anteriorly, and then carried directly up, loosely, over the shoulders and down again to a similar position on the posterior edge of the jacket. The bandage is then reversed and carried upward and forward, and returned until three or four turns of the bandage are loose over the shoulders; the same is done on the other side, and then the exterior layers of the jacket are put around the two bandages up to the top of the jacket. When the jacket is dry, the loops are so thoroughly incorporated with the jacket that they cannot be removed without destroying the jacket, and they afford a means of extension. Cases of Potts' disease are advised to be daily suspended for three or four hours, wholly or partially as the case requires. This method is also suggested in the treatment of fractures of the spine, not only could the patient be suspended for hours, but by securing the loops to the head of the bed and raising the latter at an angle the weight of the body could be used for purposes of extension even during sleep.

On the Removal by Operation of Naso-Pharyngeal Tumors.—Mr. Annandale has an interesting paper on the removal of naso-pharyngeal tumors in the *Lancet* of January 26th, 1889. The successful removal of these tumors has always been a matter of great difficulty, and many operations have been devised. The method introduced by Mr. Annandale, although not altogether original, is new in many respects, and as performed by Mr. Annandale in the very skillful manner which I witnessed in Philadelphia last September is a very brilliant operation. His method of operation is as follows: (1) The exposure of the anterior nares by freely dividing the mucous membrane connecting the upper lip and upper jaws according to the plan of Rougé. (2) The division of the bony septum of the nose along its attachment to the jaw. (3) Incising the soft parts along the middle line of the hard palate, and then sawing through the alveolar margin of the upper jaw and through the entire hard-palate along the same line. The soft-palate may or may not require

division in its middle line. The necessity for this depends upon the size and attachments of the growth. (4) The forcible separation of the two jaws and the introduction through the gap of the finger, periosteal scraper, or other similar instrument with the view of separating the secondary connections of the growth to the surrounding parts. (5) The removal of the growth from its primary site and origin by forceps, sharp spoon, cold snare, or galvanic wire. In all the author's own cases he used strong forceps, assisted by a periosteal elevator and sharp spoon. (6) When the tumor has been removed, the introduction of some form of antiseptic plug, such as a plug of lint soaked in carbolic acid and well dusted with iodoform. (7) The jaws are now brought together again and secured by one wire suture through the alveolar margin of the bone and two or more horse-hair sutures through the soft parts of the palate wound.

The advantages of this operation are the absence of resulting deformity and the freedom from hemorrhage.

Three successful cases are narrated, two in young men and one in a boy aged 14. In the case performed at Jefferson Hospital, in Philadelphia, preliminary tracheotomy had to be performed as the patient was unable to respire properly whilst lying on his back. In cases where the growth is very extensive, excision of one or both upper jaws is recommended.

Treatment of Intussusception of the large Bowel by Abdominal Section.—Mr. Arthur Barker (*Lancet*, August 4th, 1888) reports a case of intussusception successfully treated by abdominal section. The patient was a child aged four years, admitted into University Hospital August 25th, 1887. He had been in good health up to the day before admission, and his bowels had been opened at 10 A.M. About three o'clock next morning the child awoke and complained of great pain in the abdomen. He passed a stool which was loose, but there was no relief of pain; then he passed, a little later, about a wine-glassful of blood, and half an hour later some more. He was seen by Mr. Barker at 2 P.M. A tumor could be felt in left iliac fossa, and the finger in the rectum reached nothing abnormal, but returned covered with blood. The rectum and colon were then distended with water

to as large an extent as appeared safe, and this seemed to get rid of the tumor. At 7 P.M., great pain still continued, blood still was passed, and the tumor had returned. Operation was at once decided on. The intussusception was found without difficulty in the left hypochondrium. The abdominal incision was enlarged and the intussusception reduced. The bowel was much congested, and marked by submucous hemorrhages. The portion of the bowel involved in the tumor consisted of the cæcum, ascending and transverse colon. The patient made an uninterrupted recovery, and was discharged on September 16th. Appended to this paper is a table of 73 cases treated by laparotomy. In 34 of these the bowel was released; 12 recovered, 22 died, and 9 cases were found to be irreducible. In 5 the abdomen was closed without doing anything, and all died. The intussusception was resected in 14 cases, and only 1 (an adult) recovered. In 10 cases an artificial anus was made, and all died. In 10 cases an artificial anus was made without laparotomy, and all died; so that of these 73 cases only 13 recovered.

In the Hospital Mirror of *Lancet* for January 26th, 1889, Dr. Cheadle reports a case of intussusception in a child aged 14 months treated successfully by inflation of air by means of an ordinary Higginson's syringe. The patient was first placed under chloroform; on examination, a well-defined, sausage-shaped tumor could be felt on the left side of the abdomen, extending from the hypochondrium to the iliac fossa. Air was inflated until the abdomen became tolerably tense; after waiting a minute or so the air was allowed to escape. After the third inflation no tumor could be felt in any part of the abdomen. In a week the patient was perfectly well. Dr. Cheadle states that this is the fifth case of intussusception successfully treated by inflation at the Children's Hospital. Four cases are reported in the *Lancet* of October 1886 and February 1888.

Mr. Carver (*Lancet*, Jan. 26th, 1889) reports a case of intussusception in a child aged 2 years and 5 months successfully treated at the Addenbrooke Hospital, Cambridge, by abdominal section. The affection had been of seven weeks' duration. The bowel protruded at the anus. The abdomen was opened and

reduction effected without any great difficulty. There was no evidence of general peritonitis.

Surgery of the Intestines.—The literature on this subject still continues to accumulate. I have space only to refer the reader interested in this subject to the following articles:—

(1) An excellent paper on “Perforation of the Vermiform Appendix in its relation with Attacks of Perityphlitis,” by John A. Macdougall of Glasgow, *Lancet*, Sept. 22nd and 29th, '88.

(2) “Clinical Lecture on Typhlitis, its Nature and Treatment,” by Sir Dyce Duckworth, in *Lancet*, Oct. 6th, 1888.

(3) A paper by Dr. Wm. T. Bull of New York, read before the Medical Society of London, on “The Surgical Management of Typhlitis and Perityphlitis,” *Lancet*, Nov. 10th, 1888.

(4) “Special Diagnosis in Acute Perforative Peritonitis,” by Dr. H. W. G. Mackenzie, *Lancet*, Dec. 1st and 8th, 1888.

(5) “Perityphlitis,” editorial in *New York Medical Journal*, Jan. 5th, 1889.

(6) “Relapsing Typhlitis healed by Operation,” by F. Treves, *Lancet*, Feb. 18th, 1888.

(7) “Notes of a case of Abscess in the Groin containing a Vermiform Appendix,” by W. D. Spanton, *Brit. Med. Journal*, Jan. 19th, 1889.

(8) “A case of Perforation of the Vermiform Appendix, General Peritonitis, Laparotomy, Accident, and Recovery,” by Dr. A. M. Jacobus, *New York Medical Record*, Feb. 2, 1889.

(9) “The Surgical Treatment of Perforating Ulceration of the Stomach and Intestine,” by Dr. Steinthal, in *Beilage zum Centralblatt f. Chirurgie*, No. 24, 1888, quoted in *Annals of Surgery*, p. 61, Jan. 1889.

(10) “Three cases of Intestinal Obstruction due to Meckel's Diverticulum,” by Dr. G. Gibson Hamilton, *Lancet*, October 6th, 1888.

(11) “Abdominal Section for Acute Intestinal Obstruction, with Recovery,” by Mr. Edmund Owen, *Lancet*, Oct. 20, 1888, pp. 765 and 771.

(12) “Two cases of Suppurative Peritonitis treated by Laparotomy, Iodoform Gauze, and Capillary Siphon Drainage,” by Mr. C. B. Keetley, *Lancet*, Nov. 24, 1888, p. 1021.

(13) "Three cases of Excision of the Ileo-cæcal Valve for Carcinoma," by Kuester of Berlin. Report of meeting of Berlin Medical Society, Nov. 21, 1888, in *La Semaine Médicale*, Nov. 28, 1888.

(14) "On the Treatment of so-called Perityphilitic Abscesses," by Dr. R. F. Weir. Paper read before the Medical Society of the State of New York, and reported in *New York Medical Journal*, Feb. 16, 1889.

Very Hot Compresses in Surgical Practice.—Prof. J. J. Nasiloff, writing in *Pratch*, gives an account of several cases of inflammation of the lymphatic glands which he treated with marked success by means of very hot compresses. These compresses consisted of a four-fold piece of linen, rather larger than the surface of the affected glands. This was dipped into water at a temperature nearly or quite equal to 212°F., wrung out, and applied quickly over the glands, its own temperature then being 140° to 160°F. These applications were made morning and evening, the compress being allowed to remain on, covered over with cotton wool, for about fifteen minutes. The application produced somewhat severe pain, but this did not last long, though sometimes a blister was caused. The treatment was continued about a fortnight. It was found that it very soon began to promote absorption; this action was always accompanied by a rise of temperature, depending apparently upon the size of the diseased glands and upon the extent of the absorption that was taking place. It was noticed that the earlier the treatment was adopted the more effective it was. Professor Nasiloff believes that hot compresses are a valuable form of treatment, not only in strumous glands, but in rheumatic osteo-myelitis, and in fungoid inflammation of the joints.—(*Lancet*, Dec. 1, 1888.)

Reviews and Notices of Books.

Questions and Answers on the Essentials of Obstetrics. By W. E. ASHROD, M.D. Philadelphia: W. B. Saunders. 1888. Montreal: C. F. Dawson, 233 St. James Street.

This little book is one of the Saunders' quiz-compendes now in course of publication, "intended to assist students to put together the knowledge they have already acquired by attending lectures." It is arranged in the form of questions and answers, and, as far as it goes, is well done. It is perhaps the least objectionable quiz-compend on obstetrics yet published, and if used by industrious students for review purposes only may be of real service. The great danger of such books, however, is that the idle and lazy may be tempted to study nothing else, and may with their aid cram up sufficient to pass an ordinary examination without possessing any real serviceable knowledge of the subject.

The Skin Diseases of Infancy and Early Life. By C. M. CAMPBELL, M.D., C.M. London: Ballière, Tindall & Cox. 1889.

This little work, which, by the way, is brought out in the interests of one who gets much attention from book-makers nowadays, viz., the 'busy practitioner,' is a pleasantly-written synopsis of diseases of the skin. A short but good description is given of all the skin diseases of early life, and those features which entitle them to a separate consideration are dwelt upon. The eruptive fevers are described shortly, and erysipelas, strange to say, is included amongst them. Why a book on skin disease should describe certain febrile diseases which are accompanied by an eruption and not others it would be difficult to say. Why are scarlet fever and measles always described and not typhoid and typhus? The busy practitioner would be ill-advised indeed if he depended on treatises on diseases of the skin for information on eruptive fevers; still dermatologists continue to give a short account of them in every treatise on skin diseases. The most important skin disease of infancy and childhood is, without

doubt, eczema, yet this is but superficially treated in this work. The chapter on "Parasites, Animal and Vegetable," is short and to the point. The last chapter, on "Therapeutic Agents," contains a number of valuable recipes, which, no doubt, will be appreciated by the 'busy practitioner.' On the whole, this book is well suited for handy reference, and contains much information that is recent. It would be greatly improved if there was a good index attached, the only index being that of the authorities referred to. The book is beautifully printed on good paper, and is singularly free from typographical errors.

A Treatise on Headache and Neuralgia Including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. LEONARD CORNING, M.A., M.D., Consultant in Nervous Diseases to St. Francis Hospital, etc., etc. Illustrated. Price, \$2.75. New York: E. B. Treat, 771 Broadway, 1888.

In this work the author, after a few preliminary remarks on the mechanism of head pains, proceeds to discuss the nature, symptoms and treatment of anæmic headache. He lays great stress on the diagnostic importance of feeble pulsation in the carotids in this form of headache. He maintains that there will also be found, if properly looked for, a lowering of the surface temperature of the head. The importance of the latter statement should have had the support of the facts that led the author to make it.

In the treatment, mention is made of the use of the nitrate of amyl, the nitrite being evidently meant. Alcohol is spoken of as the most reliable agent in anæmic headache. This we believe to be a very unnecessary and a very unsafe mode of dealing with these cases.

The author highly recommends his method of compressing (electro-compression) the carotid arteries in cases of so-called congestive headache.

Separate chapters are devoted to the consideration of nervous, toxic and sympathetic headaches and those due to gross organic lesions of the brain and its coverings. In the

treatment of neuralgia, but little is said of the most important part of the treatment—the general treatment—while a great deal of space is taken up with local medication, for this and for the author's views on spinal irritation we must refer the reader to the work itself.

Therapeutics : its Principles and Practice. By H. C. WOOD, M.D., LL.D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System, in the University of Pennsylvania. A work on Medical Agencies, Drugs and Poisons, with especial reference to the Relations between Physiology and Clinical Medicine. The seventh edition of a Treatise on Therapeutics, rearranged, rewritten, and enlarged. Philadelphia : J. B. Lippincott Co.

The seventh edition of this truly great work is, in many respects, a marked improvement on previous issues. The first part, containing one hundred pages, is devoted to the consideration of remedial methods other than drugs. Massage, metallo-therapy, dietetics, heat, cold and electricity are shortly, clearly and forcibly described. We have also excellent chapters on the treatment of general bodily conditions, including exhaustion, obesity and the gouty diathesis.

In the classification of drugs, the author adopts a new system which, while it presents some advantages over other methods, is not free from fault. In classifying such agents as Indian hemp, belladonna, hyoscyamus, stramonium and cocaine under the heading of delirifacients, nothing is gained, while much is lost. None of the above-named drugs are ever used in the treatment of disease to induce delirium. Delirium is an untoward and an undesirable action. In our opinion, the closer a classification holds to the pharmacology (in medical doses) and therapeutics of an agent, the more useful is it.

We need hardly mention that the pharmacology of all agents, both old and recent, are carefully and well described. This could hardly be otherwise when the author is well known as one of the greatest of living pharmacologists. Prof. Wood is, how-

ever, in addition, a great physician, and his extensive knowledge and experience shows itself continually.

The volume closes with the usual appendix so common in recent works on therapeutics—the Therapeutic Index. Such aids to the treatment of disease are of questionable utility.

Favorite Prescriptions of Distinguished Practitioners, with Notes on Treatment. By B. W. PALMER, A.M., M.D. New York: E. B. Treat, 771 Broadway, 1888.

This work is simply a compilation of prescriptions, and will no doubt be found useful for those practitioners who are either unable or too lazy to think for themselves.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, November 30th, 1888.

WM. GARDNER, M.D., PRESIDENT, IN THE CHAIR.

A New Adenomatome.—DR. GEO. MAJOR exhibited a new form of adenomatome recently devised by him.

DR. POTTS was elected a member of the Society.

Arsenical Pigmentation.—DR. LAPHORN SMITH exhibited a case of chronic arsenical poisoning, resulting from the taking, in all, of less than an ounce of Fowler's solution in doses of five minims three times a day gradually increased to ten minims. As the patient now presented all the symptoms of Addison's disease, the bronzing of the skin being very marked, she might easily be mistaken for such a case if it were not known that she had been taking arsenic. As only one case of arsenical pigmentation had been shown to the Society during several years, the last being by Dr. R. L. MacDonnell, he thought that it might be of interest to any of the members who had not already seen it. The arsenic had been administered for pustular acne, which it had rapidly cured.

Thrombosed Vein from Abscess in right Thigh.—DR. LAFLEUR exhibited the specimen and gave the following history:—The

patient, a man about 30 years of age, had developed a phlebitis in the right thigh during an attack of typhoid fever. During convalescence a swelling was noticed about the middle of the inner side of the right thigh, which gradually increased in size and was accompanied by a rise of temperature. On incising this, a quantity of pus and blood-clot escaped, and with these a tough, greyish cylindrical body six inches long and about six lines in diameter at its thickest end, tapering slightly to the other extremity. A small piece one inch in length, having the same appearance, was also observed. On examination, these were found to be necrosed pieces of a thrombosed vein, probably the internal saphena vein, in the course of which the abscess lay. The original phlebitis had been followed by suppuration about the vein, and the thrombosed portion had become necrosed and had come away with the contents of the abscess.

Abdominal Cancer.—DR. LAFLEUR also exhibited specimens from a case of cancer of the stomach, involving the head of the pancreas, with formation of a pancreatic fistula. The new growth was limited to the lower and anterior portion of the wall of the stomach half an inch from the pyloric. In this situation there was a large cancerous ulcer one and a half inches in diameter and one inch in depth, with firm, raised edges and a dirty, greenish-gray sloughy base. On dissecting out the pancreatic duct, which was very tortuous, an opening was found in it on the floor of the ulcer about two and a half inches from its intestinal end. The pancreas in this situation was very much infiltrated with cancerous material. The liver contained numerous metastatic nodules of a pinkish-gray color, with yellow centres, showing marked umbilication. The glands in the transverse fissure of the liver were enlarged and infiltrated. On slitting up the bile duct no obstruction was found as far as the junction of the right and left hepatic ducts. The gall-bladder was moderately distended with clear bile, which could easily be expressed through the bile papilla. There was extension of the cancerous growth locally both in the peritoneum and in the right pleural sac. Microscopically the growth consisted of an imperfectly-developed tubular structure resembling gastric follicles and lined

with cuboidal and round epithelial cells. Between the imperfect tubules there was also a growth of epithelium with a scanty stroma. An interesting feature in the case was the presence of sugar in the urine for some weeks previous to death.

Excision of the Elbow.—DR. RODDICK presented specimens of diseased bone removed by excision of the elbow-joint. The patient, a farmer, of about 40 years of age, came to hospital with an abscess in front of the elbow-joint, which was opened by the house-surgeon. The first sign of disease was noticed about three months before coming to hospital. When examined by Dr. Roddick the joint was found to be involved and the articular surfaces of the bones diseased. He then decided on excision. The joint was dressed with antiseptic precautions and bone-drains employed. Recovery was rapid and complete.

Foreign Body in the Bladder.—DR. RODDICK exhibited a piece of a black gum-elastic catheter removed from the bladder of an old gentleman by the lithotrite. The fragment was about four inches long, and was brought away complete, although very friable. Dr. R. stated that he was fortunate enough at the second attempt to grasp the fragment almost exactly at one end and it was easily withdrawn.

DR. HINGSTON had removed foreign bodies from the bladder four or five times. Twice a piece of catheter and once a lead pencil in the case of a boy of 12 years. The accident of breaking a catheter in the urethra is always a serious one, and not always easily guarded against when patients catheterize themselves. He related a case where a new bougie had broken and a piece remained in the bladder when used by a physician; after removal the piece was very friable and coated with phosphates. The lithotrite is the best instrument to use in these cases, especially Bigelow's form, as it affords a good grip and is not so likely to cut the substance of the catheter.

DR. PERRIGO had two cases, one of a broken catheter removed by Dr. Hingston and one case of a hairpin in the bladder of a woman. The latter had been in some time, for when removed it was thickly coated with phosphates.

A Strange Case in Gynæcology.—DR. LAPHORN SMITH related the following case :—

I was sent for early in the morning of the 1st of October to attend Miss T., who, I was informed, was in great pain from inability to pass her water. I found a pale, rather stout, and short girl, a little over 15 years of age, evidently in great suffering, which I speedily, but with some difficulty, relieved by using the catheter. There was profuse leucorrhœa, and on attempting to ascertain the cause of the retention by digital examination I was prevented from doing so by the smallness of the opening in the hymen, which I did not feel justified at that time in rupturing. On inquiry I ascertained that she had always enjoyed good health until a few weeks previously, when she came to the city from the country for the purpose of finishing her education, and at which time she had a similar attack of retention of urine. She had menstruated regularly and freely both before and since her arrival in the city, and the flow was accompanied with some pain, but the stoppage of her water on either occasion did not seem to have any connection with her periods. As she was studying more than her health could safely bear, and as she had become very nervous, I advised her to leave off some of her classes and prescribed some nervous sedatives, thinking that the bladder trouble might be merely a sympathetic affection, due to overwork. I heard no more of her until the 12th October, when I was again sent for to draw off her water, of which I took away a large quantity, very pale in color, and with complete relief. Being sent for again eighteen days later I was unable to introduce the soft rubber catheter which I had used before, and was obliged to have recourse to the silver female catheter, which was introduced with great difficulty, and which, though six inches long, barely sufficed to reach to the bladder. The leucorrhœal discharge had now become foetid and somewhat darker, and I felt convinced that there must be something pushing the bladder up out of the pelvis and pressing on the urethra, and I therefore sent for her mother, whom I intended to come with her daughter to my office for an examination of the latter. By gentle and persistent pressure I succeeded in getting my finger through the

hymen, but further progress was immediately arrested by a tense sac almost solid in consistence which completely filled the lumen of the pelvis, and which barely left room for the finger to be squeezed through between it and the symphysis of the pubis. On making a rectal examination, the finger did not go backwards along the hollow of the sacrum, but was carried forward and to the patient's right towards the symphysis of the pubis. Neither by vaginal, rectal, nor even bimanual examination could the uterus be felt, although by the latter method the tumor could be very distinctly felt projecting at least an inch above the crest of the pubis. By this time the patient had begun to suffer very considerably from constant pressure symptoms on the bowel and bladder, and these, combined with the excessive foetor of the discharge, which was becoming slightly colored and containing flocculi or grumes, warranted me in thinking the case a serious one and in requesting the opinion of my distinguished elder brethren, Drs. Trenholme and Gardner, which they very kindly granted. Dr. Trenholme agreed with me in finding the pelvis full, but was unable to throw any further light on the question of its nature. He recommended early operation. Dr. Gardner was also good enough to examine her at his office, but deferred his opinion until he should have had an opportunity of examining her under an anæsthetic, for which he requested me to make arrangements at her home. On the afternoon of the 10th Nov. she was anæsthetized with a mixture of two of chloroform and three of ether, not having the one of alcohol which should have been in it, and which I regret to say in my hurry of leaving my home I omitted to add. The digital, vaginal and rectal examinations did not throw much new light on the case, so Dr. Gardner aspirated a small quantity of sanious liquor by plunging a fine needle into the centre of the growth or accumulation. On removing the needle he, without any difficulty, made an opening in the retention wall with his finger, so thin was it at this point, directly opposite the hymen. A lot of friable, cheesy material mixed with blood cozed through, and after a brief consultation I quite concurred in his proceeding to empty the cavity. This was done partly with the finger, and when that was no longer

able to reach high enough, he used a blunt scoop to remove a lot more. There was a good deal of hemorrhage, which was for the moment controlled by a douche of hot water containing a little Condy's fluid. On introducing the finger now it passed through a hard fibrous ring which led into a large cavity from which most of the contents had been scooped out. Stretching across this cavity many fibrous bands or trabeculæ could be felt. The feeling of the hard ring reminded one forcibly of the rigid os of a woman of 40 in labor with her first child and well advanced in the first stage. In order to provide for freer drainage Dr. Gardner incised this ring, and as the bleeding was still rather free the cavity was stuffed with two long strips of iodoform gauze. The patient was put to bed and hypodermic injections of beef-tea were given frequently until she had recovered from the shock, and then a hypodermic of Battley was administered to ease the pain of which she complained. The vomiting was very severe, and never ceased during the next four days. Her pulse, however, gradually returned, and in a couple of days it had come down to 120. Nourishment was given per rectum, and was well retained for several days, after which the bowel rebelled and ejected what was put into it. She passed water freely and painlessly after the operation, and she had several natural motions. On the 12th Dr. Gardner met me again and we removed the iodoform gauze tampon without any return of the bleeding, and a double drainage-tube with a cross-piece in one of them for the purpose of retaining it was introduced into the cavity, which was by this means regularly washed out every four hours with hot water and Condy's fluid. All went well for a couple of days longer, till the 14th November, when the tubes came out and could be re-introduced only a very short distance owing, apparently, to the cavity having either filled up or contracted. On the 11th, 13th and 14th the temperature had been subnormal, 97° to 98°, except on the 12th, when it reached 100° before the tampons were removed, and on the 15th, when it began to rise, reaching 102° on the evening of that day. The foetor, which had been entirely absent since the operation, then returned, although the free irrigation had been constantly kept up. Early

on the morning of the 15th she began to complain of severe pain at the bottom of the belly, which had all through been flaccid and free from tenderness, but more especially she suffered from a bearing-down pain in the rectum, which she attributed to the pressure of the drainage tubes, which I therefore removed on the evening of the 15th. As the pain continued to increase, and her recovery was decided to be hopeless, I gave her a hypodermic of Battley solution, and repeated it from time to time until her death, which took place early on the 16th November, six and a half days after the operation.

To resume : (1) She had always been remarkably healthy as a child, and the functions of puberty had been established without any apparent disorder. (2) She felt perfectly well until the retention of urine occurring at the middle of September. (3) Shortly after the retention a profuse discharge began containing specks of cheesy matter and which soon became foetid. (4) Menstruation continued normal in quantity and quality and without pain. (5) The symptoms of pressure on the bladder and rectum became so urgent as to require intervention of a permanent nature. (6) An exploratory aspiration was made to determine the nature of the mass which was found to fill the pelvis, but without any intention at that time of operating for its removal; but on finding the contents semi-liquid we deemed it advisable to avail ourselves of the anæsthesia to empty the sac and drain it. (7) Being an anæmic girl the unavoidable hemorrhage was sufficient to cause collapse, from which she slowly rallied. (8) Peritonitis set in (without pyrexia or swelling of the abdomen) owing to the impossibility of obtaining perfect asepsis. (9) The bowels were moved freely for several days after the operation, and after that the saline treatment was not possible owing to the uncontrollable vomiting, for which were tried ice, iced water, iced champagne, iced soda water, hot water and hot tea, the latter being the first thing which was retained, on the fifth day, when the vomiting ceased, and when she rallied somewhat. (10) The temperature was subnormal all the time, except the third and fifth days, when it rose to 100° and 102° respectively; on the sixth and seventh days it was subnormal again. (11) She passed water freely after the operation.

The above are the facts of the case, and I regret that I am unable to prove the result by a post-mortem examination, which I repeatedly endeavored to obtain, but which the dying girl begged her relatives not to allow, as her last request.

I have called this an obscure case of gynæcology, for the reason that the pathologist of the Society, on his first examining the specimens submitted to me, did not discover any sarcoma cells, so that in their absence the most likely conclusion to which Dr. Gardner and I were at first compelled to come was that we were dealing with a case of double uterus and vagina, one side of which had formed a large retention cyst, the contents of which had become purulent by the admission of air through a small fistulous opening, from which, also, a small quantity of the contents had exuded into the open vagina, thus giving rise to a foetid discharge. When we felt the fibrous bands stretching across the cavity, and when we saw the free hemorrhage following the breaking up of the contents, we were inclined to think that we were dealing with a sarcoma. Moreover, if it had been a case of retained menstrual fluid, the contents would have been tarry, and not organized; as I believe there is no case on record of retained menstrual fluid ever becoming organized to the slightest extent. On the other hand, this hard fibrous ring reminded one forcibly of the open cervix of the hypertrophied uterus; for in all cases of retention, the continual efforts of the organ to expel these abnormal contents result in a real hypertrophy of its muscular walls. The fact that menstruation had been going on regularly for several months was, of course, against retention, and could only be explained by there being a double uterus, one side of which was closed up and full of menstrual fluid, while the other side fulfilled its functions. The uterus itself could not be felt by any form of examination, so that we were quite in the dark as to whether there was one or two, or whether the contents of this cyst were due to retention or to malignant growth. Against the theory of malignant growth was the fact that she had had no pain in the pelvis or abdomen other than what might be reasonably referred to pressure on the bladder. Against the theory of the tumor being due to disease of either the uterus or ovary

was the fact that the rectum was carried forwards and to the right until it occupied the small place between the tumor and the right symphysis pubis : and the finger in the rectum could feel on either side a band which seemed to be the rectal fold of the peritoneum which had been lifted forward with the rectum by the growth developing behind it.

Just before the meeting, Dr. Lafleur informed me that he had succeeded in finding some large round sarcoma cells, which, of course, has now made the diagnosis clear ; and it is some consolation to know that in view of the very rapid growth which the tumor had made within two or three weeks, that the patient could not have lived in any case more than a few weeks longer. While, on the other hand, the tumor being so firmly wedged into the pelvis, and possibly growing from the posterior part of it, the result of abdominal section would have been instantly fatal. This displacement of the rectum forwards would seem proof positive that the tumor must have grown from the back of it ; but Dr. Gardner, in the case which he will report, and of which he has the specimens, obtained from the post-mortem, proves that the retained menstrual fluid cyst, in developing, had pushed the rectum forwards and to the right in precisely the same way.

Discussion.—DR. TRENHOLME said that through the courtesy of Dr. Smith he had seen the case some three weeks before death. The girl at that time was in general good health and free from suffering. On examination, found the left and posterior part of cavity of pelvis to about one-third of its surface occupied with a sessile growth, immovably covered by or bound down to the periosteum or walls of the pelvis. The growth bulged into the cavity and filled nearly half the space ; was of round, uniform contour, except where it seemed constricted about half an inch below the brim of the pelvis by a dense fibrous band. The growth was non-fluctuating and extended from the lower margin of the pubis and ischium to a slight distance above the brim. Per vaginam, found the uterus high up and pressed to the right side, but quite free and movable. Both per vaginam and rectum, could feel the mass as far as the crowning part of the growth ; could not detect fluctuation ; was in doubt as to the exact origin.

of the growth, but he wrote Dr. Smith that he regarded it as a myomata, and that it should be removed at once. These facts lead him to wholly dissent from the conclusion reached by the reader of the paper and Dr. Gardner, that it was a growth due to retained menses in a double uterus. There never had been any menstrual trouble, which was hardly compatible with that view. The mobility of the uterus and its entire separation from the tumor, together with its rapid growth and still more rapid changes during the two weeks between his examination and that of his friend Dr. Gardner, utterly precluded the thought of a double uterus and retained menstruation. In fact, the exhibition of the pathological specimens would alone suffice to convince him (Dr. T.) that such was the case. It was much to be regretted that no post-mortem examination was obtainable. Dr. T. would have operated by laparotomy had the case fallen into his hands, as he expected it would have when first consulted. He much regretted being absent from the operation.

DR. GARDNER reported a case which had been sent to him from Brockville, the symptoms of which had a similar onset to the case of Dr. Smith. He emptied the cavity and irrigated thoroughly, and felt sure that he had saved the patient, as she did well until the seventeenth day, when the drainage tubes came out, and, unfortunately, were not replaced for several hours, the result being that her temperature immediately rose, and she died a few days afterwards from peritonitis. He thought at first that this case of Dr. Smith's was one of retained menstruation, but changed his opinion somewhat on perceiving the organized condition of the contents of the cyst, as in the case of his own, to which he had referred, the contents were distinctly tarry. However, on learning from the pathologist that no cancerous cells could be found, he was forced to the conclusion that this was a case of double uterus with retention, and with malignant degeneration of the lining membrane of the organ. The subsequent report of the pathologist stating that round sarcoma cells had been found had, of course, considerably shaken his opinion.

DR. LAFLEUR said that he could not accept Dr. Smith's view

of the case as one of double uterus with retention. He regretted that Dr. Smith had accepted as final the evidence of the first examination, which was hasty and necessarily imperfect from the condition of the specimen. The history of the case and the subsequent microscopic examination of the fragments removed pointed conclusively to a rapidly-growing periosteal sarcoma. The specimen showed large round cells embedded in a granular matrix enclosing large and numerous blood-channels. In places the vessels had ruptured, and their contents were mixed with the sarcomatous tissue. A few spicules of bone were detected. Such sarcomas were very prone to soften and degenerate, producing cavities filled with bloodclot and shreds of the new growth. The firmness and resistance of the outer portion of the growth were due to a secondary inflammatory action, which was a frequent concomitant of rapidly-growing tumors.

DR. RODDICK thought it was a sarcoma, and that Dr. Lafleur's explanation was satisfactory. He could not see that there was sufficient evidence to enable one to establish a diagnosis of uterus duplex.

DR. HINGSTON said that as Dr. Trenholme had made out a freely movable uterus displaced upwards at an early examination, and had been able to pass his finger between the uterus and the growth, these observations, together with the forward displacement of the rectum, left no reasonable doubt but that Dr. Smith had to deal with a rapidly-growing tumor arising from the bone behind or partially behind the rectum. He could not see how it was possible for a tumor in front of the rectum to displace it to the right and towards the pubis.

DR. RUTTAN said the evidence derived from the nature of the cyst contents was against its being a retained menstrual fluid; Extravasated blood could not be pent up for a prolonged period in such a cavity without its pigment becoming more or less completely changed into methæmoglobin and becoming of a dark or tarry appearance.

DR. SHEPHERD said it was evidently a case of sarcoma and not of uterus duplex.

DR. WILKINS referred to a sarcomatous tumor which had been

sent to Dr. Fenwick, where the tumor contents were exactly similar to the specimens shown to-night by Dr. Lafleur. The tumor was the size of a child's head and of very rapid growth. Such tumors are prone to become highly vascular, and the contents to become friable and give rise to very serious hemorrhages.

DR. CAMERON agreed with the previous speakers as to the nature of the disease, and thought that Dr. Trenholme's observations made before the pelvis became blocked by the rapid growth completely negated the diagnosis of double uterus.

DR. SMITH, in reply, expressed his regret at not having been able to obtain a post-mortem, although he had made many repeated and strenuous efforts to do so. This would, of course, have cleared up the obscurity. Neither was he allowed to resort to abdominal section during life, as the patient felt convinced that nothing could save her, and she wished to die peacefully. He admitted that Dr. Hingston's point was very well taken, as it had struck him at the time of his first examination that it required something behind the rectum to push it forward. If he had known that there were sarcoma cells in the specimen he would not have so much entertained the theory of the double uterus. He was glad, however, that his paper had elicited such general discussion, and he begged to tender his grateful thanks to Drs. Trenholme and Gardner for their kindness in assisting him with this very serious and difficult case.

Stated Meeting, Dec. 14th, 1888.

WM. GARDNER, M.D., PRESIDENT, IN THE CHAIR.

Ovarian Tumor.—DR. LAFLEUR exhibited the tumor for Dr. Wm. Gardner. It was multilocular, and contained a large quantity of yellowish, somewhat viscid, fluid which resembled pus. On examination, this was found to be due to extensive fatty degeneration of the cellular elements of the fluid, which were present in great abundance. There was no inflammatory reaction such as would occur in a suppurating cyst. The part of the tumor nearest the pedicle was solid, and on opening the largest cyst was found to be composed of a convex mass of papillary processes, very vascular, and covered with viscid mucus.

In places the papillary projection had undergone fatty degeneration. This was particularly marked in some of the smaller cyst cavities. The surface of the tumor presented two patches, each about one inch in diameter, of a greyish-black color, which appeared to be necrosed. There was nothing to account for this change, as far as could be made out. A small piece clipped from the solid part of the tumor showed branching club-shaped papillæ covered with numerous layers of epithelial cells, the uppermost layer being cylindrical in shape.

Abortion at the Fourth Month.—DR. ALLOWAY exhibited fragments of a fœtus removed from the uterus at the fourth month of gestation. Symptoms of threatened abortion had for some weeks existed. Suddenly the patient had a chill, with rise of temperature, and the operation was performed a few hours afterwards. Under ether the cervix was dilated with Goodell's powerful steel dilator to its full extent ($1\frac{1}{2}$ inches), and the contents of the uterus removed in fragments as rapidly as possible and the walls of the uterus curetted. The patient was up about a week afterwards, and has had no more trouble. Dr. Alloway spoke of the fatal error so often committed of allowing the first or initial chill to pass by without interference. He held that the employment of antipyretics was largely responsible for this error which had cost society so many valuable lives, and much after-suffering in those it did not kill. He spoke strongly against the use of sponge tents or other kind of gradual dilatation. The method was not consistent with the attainments of scientific surgery of the present day. It could never be carried out as an aseptic procedure, and it was dangerous. Many case of death have followed the use of tents which should not otherwise have terminated so, and it was not at all uncommon to be followed by severe attacks of pelvic cellulitis and months of anxious invalidism. Dr. Alloway said it was a great mistake to accept the statement of instrument makers that their sponge-tents were aseptically prepared; such statements were as absurd as they were untrue. These men merely sold their wares, and sold them under auspices best suited to the unwary purchaser. Instrument makers assumed no responsibility, and the surgeon was over-

trusting who gave them credit for any such attribute. On the contrary, Dr. Alloway spoke of the almost absolute safety of the use of the carefully kept steel dilator, the vagina being previously rendered aseptic and the operation carried on under irrigation. Of late he said that in such cases, after he was satisfied the uterine cavity had been quite emptied, he filled the cavity with carefully-inserted iodoform gauze, which he removed twenty-four hours afterwards. He spoke highly of his results with this method.

DR. ARMSTRONG said he preferred using large tents or a number of small ones, as by slow dilatation the os is not so liable to close again before the contents of the uterus are evacuated.

DR. GARDNER preferred Tait's rubber dilator, but also has good results from sponge-tents. He always disinfects the latter by rolling them in iodoform before using. He agreed with Dr. Alloway that in such cases as the one related rapid dilation is to be preferred.

Fibromata of the Os Uteri.—DR. ALLOWAY also exhibited a small uterine fibroma (size of a walnut) which had originated in the cervical wall, had become pediculated, and hung from the os uteri. It was twisted off with the vulsellum. The case was admitted into the Montreal General Hospital suffering from severe metrorrhagia and pelvic pain. She left hospital a few days after being relieved of the growth. Dr. Alloway spoke of the extreme rarity of fibromata of the cervix, and of the hemorrhagic endometritis which was maintained by the presence of so small a neoplasm.

Dr. Alloway also exhibited the anterior segment of the cervix uteri, containing, just below the level of the internal os, a small fibroma (size of a horse bean). The parts had been removed by Schröder's method of trachelorrhaphy. The patient was 40 years of age, had borne one child sixteen years previously, and of late years had suffered from menorrhagia and pelvic pain. Dr. A. also did, at same sitting, an anterior and posterior colporrhaphy on this patient.

DR. ARMSTRONG had a case of fibroid of the cervix in the Western Hospital. The tumor was the size of an orange, and

projected into the vagina. It was easily enucleated, with complete relief from all previous symptoms.

DR. GARDNER said he had only met with one case. The tumor was the size of a hen's egg, with broad attachment, and occurred in a woman of 50 years. The growths were very distressing, and often gave rise to serious complications at parturition when long. He quoted a case in point where, at labor, it was found possible to raise the tumor above the pelvis, and thus allow of the passage of the child. The patient died of hemorrhage.

DR. GURD found a tumor the size of a small ball projecting from the os of a woman who consulted him for frequent hemorrhages. He intended operating, but the tumor enucleated itself, and was passed per vaginam.

Correspondence.

IS MODESTY THE BEST POLICY?

To the Editors of THE MONTREAL MEDICAL JOURNAL.

SIRS,—I see by a recent number of the *Canadian Practitioner* that Toronto has facilities for operating equal to those of any place in the world, that abdominal surgery in consequence is making very rapid strides, and that the number of operators and operations is increasing *pari passu* with the well known remarkable increase of the population. This is proclaimed with the modesty which is a characteristic of the dwellers in that lake-side city. The question is asked, "Is Toronto destined to become the Birmingham of the Continent or something more?" The editor pauses for a reply, no doubt aghast at his own audacity. We might here remark that it is very difficult to play Hamlet with Hamlet left out. Mr. Lawson Tait has many ardent and slavish followers in Toronto, and it is said that more apostles are on their way out, but it is evident that they follow their master at a distance—a very long distance—and if they endeavour to set up a new Birmingham it will no doubt be Brummagem. In the same journal there is another modest editorial on the Ontario Medical Council in which the question of reciprocity with Great Britain is dis-

cussed; it is stated that notwithstanding the well-known loyalty of Ontario she cannot recognize "the cheap medical corporations" of Great Britain, and the writer regrets that Great Britain has not a central examining board "such as ours." God forbid!! The so-called cheap corporations at least have examiners who are to some extent acquainted with the subjects they examine in, and, besides, they are supervised by assessors from the General Medical Council who are acknowledged to be at the head of their profession both as teachers and practitioners. Can as much be said of the Ontario Medical Council? It is a well known fact that their examiners are not appointed because of their special knowledge but for territorial and political reasons, that the very men (the teachers) who ought to be the best examiners, especially in the primary subjects, are excluded because of—shall I say—their fitness. That students prepared by teachers, the most advanced of the day, are examined by men whose knowledge, to say the least, is not up to date, who rely on text books long ago obsolete, and know so little of their subjects that they look upon the advancement of new views as heresy of the worst type. Until the Ontario Medical Council alters its examiners and their methods of examining, it will have little to boast of except the number of its rejections. Ontario has much yet to learn in medical matters, and it would be as well for her to remember the old proverb that "good wine needs no bush."

I am, Sirs, yours truly,

M. R. C. S.

ILLEGIBLE PRESCRIPTIONS.—A fatal poisoning case arising out of the careless manner in which the prescriptions of medical men are often written has occurred in France. A physician gave to his brother, who was suffering from migraine, a prescription for a dose of antipyrin. Unfortunately, the pharmacist to whom the prescription was taken happened to be out, and the paper fell into the hands of a female assistant, who, instead of *antipyrin*, read *atropin*, and dispensed accordingly.

Selections.

Prophylaxis in Scarlatina.---Baumlor (*Munch. Med. Wochenschr.*, 1888, No. 42, p. 703) gives some statistics showing the high rate of mortality from scarlet fever, and reviews the complications which may occur. Prominent among these is albuminuria, to which he calls especial attention. A careful distinction is to be drawn between the albuminuria frequently occurring early in the disease, accompanying high fever, and lasting but a few days, and that developing at the third or fourth week, which is often very persistent and may be attended by all the evidences of a severe nephritis, though the amount of albumin be small. Regarding the prophylaxis against scarlatina, the two questions arise, Whether this is possible, and whether it is necessary? Though this disease is so much more dangerous than measles, the disposition to get it is very much less. Only in a few of the early years of childhood is there a really considerable tendency to catch it from others, and this rapidly grows less with advancing age. An important point, therefore, is that the longer the child can be protected from the disease, the greater is the likelihood that it will escape it entirely. As is well known, the contagium of scarlatina is always derived from some other case; it possesses a very great vitality; it is active from the earliest beginning of the disease until far into convalescence; and it usually requires a very short period for its incubation. The author reports cases to show that the breath may carry the contagion before the appearance of any eruption, though the chief danger is during the stage of desquamation. It is therefore absolutely necessary to isolate patients as soon as possible. The clothes can be disinfected, but it is virtually impossible to disinfect the epithelial covering. A fixed time during which the patient must be isolated cannot, therefore, be named, but the child must remain away from others until the shedding of the epithelium, especially that of the palms and soles, is entirely completed. The author has known this to require sixty-three days from the onset of the disease, and a still larger number has been reported by others. Desquamation can perhaps be hastened by bathing with warm soap-water; and the dissemi-

nation of scales hindered by inunctions. It is very important that the scalp be treated in this way, as the scales of this part are fine and are shed early. A convalescent room is of especial value for those patients who feel well, but who cannot with safety mingle with others. Children who have come in contact with cases of scarlatina should remain under observation ten or twelve days before again joining other children. Those in attendance upon the patients should wear some outside garment in the sick-room, and change their clothes and wash their hands in carbolic water on leaving it. The sick-room should be thoroughly aired every day, with proper precautions that the patient take no cold. All the linen used about the patient is, while still in the sick room, to be put in a three per cent. carbolic acid solution, and then boiled with a strong soap. Shoes are to be disinfected with the carbolic water, and clothes treated with steam. The walls of the sick-room, if painted or papered, are to be rubbed down with bread after the patient has been removed, the iron and wooden furniture and the floors washed with a carbolic solution, and the curtains, mattresses, etc., subjected to steam. Special vehicles should be employed to bring children with scarlatina to hospitals. Finally, precaution should be observed against the carrying of the disease by third persons, domestic animals, books, letters, milk, etc.—*American Journal of the Medical Sciences.*

Clinical Experiments with Ether.—Dr. Fritz Feuter (*Deutsche Zeitschrift f. Chirurgie*), Dec. 1888), in an elaborate article upon ether anæsthetization, reviews the literature of the subject, and records his own experience in a large number of cases. He has always employed a large face mask, around the edges of which a folded towel is laid to prevent evaporation of the drug. The following four points were separately dealt with as being of most importance: (1) the time from the beginning of anæsthetization until anæsthesia is produced; (2) the quantity of ether necessary for this; (3) the total quantity of ether used; and (4) the duration of the anæsthesia. His method of administration is as follows: From a graduated bottle about fifty centimetres are poured upon the mask for an adult, for children half this quantity is sufficient. The mask is then slowly brought down to the face, so that the

patient gradually becomes accustomed to the fumes; this does away with that painful choking which always occurs if the mask is abruptly placed upon the face. So soon as the mask is well over the face, a folded towel is placed around it, and the mask is not removed again until there is complete relaxation of the extremities. In this way the patient is continually inhaling ether fumes, for even his exhalations are partly re-inhaled, and assist in producing anæsthesia. With these precautions carefully adhered to, the author has invariably found that complete anæsthesia could be induced within two minutes. More than this, the amount of ether subsequently required to maintain unconsciousness is remarkably small. Often in operations of over a half hour's duration, and even longer, no addition of ether is necessary. In his opinion the two most important points upon which the success of etherization depends, are the concentration of the fumes and the non-removal of the mask. The nausea following etherization he believes to be due to the swallowing of saliva which is filled with ether, the secretion being greatly increased by the drug; naturally, therefore, the less ether used the greater probability that nausea will not be produced; and indeed his experiments seem to justify this conclusion, for in 150 cases vomiting only occurred in 10, and in two of these the patients had taken a meal immediately before the operation. In quoting the statistics of the Geneva clinics, he states that out of 553 cases, vomiting occurred in 148. Feuter continues by giving a list of personal observations which differ but slightly from those of other practitioners. One fact, however, deserves special notice, viz., he has observed in several cases that when the patient has taken a moderate quantity of alcohol just previous to the operation the anæsthesization is greatly accelerated; indeed, in one instance hardly a minute passed before the patient was in a complete stupor.

In the second part of his article, which Feuter designates the "experimental part," some cases are cited in which serious results have followed the use of the drug. Emmet was the first who pointed to the danger of etherizing patients affected with nephritic troubles. He claims that it is absolutely necessary to examine carefully the urine of such patients before operating, and holds that the presence of albumin is a positive contra-indication for the use of ether, and direct indication for

the use of chloroform. Other authorities are of the same opinion. In direct contradiction of the above statements, Feuter declares that he has frequently etherized cases of albuminuria without these symptoms resulting. Of extreme interest was the case of a child of five months which was operated upon for cavernous angioma of the left arm and the right side of the thorax. It was not noticed upon admission that the child was suffering from acute albuminuria. The canterization of the angioma necessitated anæsthetization, and this was done with ether. Three days before the operation large quantities of albumin had been traced in the urine, but neither immediately after the operation, nor until three days later, could the slightest trace be found. Another similar case is quoted. Feuter then records six experiments upon dogs, which he made at the Pharmaceutical Institute of Berne, with the following result: A general decrease of temperature was always observable at the rate of about one degree centigrade an hour. After death the whole abdominal and thoracic cavities were pervaded by a strong smell of ether. The heart was found in diastole. Neither macroscopically nor microscopically did the kidneys show any change. Albumin was never found in the urine. This, he thinks, goes to prove that the kidneys are not affected by etherization. Death never occurred except when intentionally caused by excluding all air from the animal. Accompanying the article are complete tables which clearly elucidate both the experiments and conclusions of the author. —*American Journal of the Medical Sciences.*

Psychoses and Gynæcological Operations.—Fillebrown, in the *American Journal of Obstetrics* for January 1889, concludes an article on this subject as follows: Psychoses may result from gynæcological operations in patients without hereditary predisposition. In these cases the prognosis is good. If the mental trouble does not appear within four months after the operation, it probably has no connection with it. In the majority of these cases the convalescence is abnormal. The fact that a patient is predisposed to a certain psychosis ought not to be regarded as a contra-indication to an operation. If she is actually insane, a gynæcological operation should only be performed as a final resort. In recording the

history of an operative case particular attention should be paid to the family history, with the view of discovering a possible hereditary taint.—*Ibid.*

The Influence of Removal of the Uterus and its Appendages on the Sexual Appetite—Mr. Lawson Tait (*British Gynecological Journal*, Nov. 1888) cites a number of cases in which not only oophorectomy but hysterectomy had been performed without diminishing the sexual appetite. In several women it was actually increased. The most striking evidence that the ovaries had no influence upon it was shown in the case of virgins who were operated upon when young, and afterward married and developed a full capacity. Seven cases are cited. In the discussion of the paper the consensus of opinion was on the side of Mr. Tait.—*Ibid.*

Vicarious Menstruation.—Parsons (*Ibid.*) reported the case of a healthy young woman, aged 19, who had never menstruated, but had severe epistaxis at irregular intervals. Treatment, both medicinal and electrical, was of no avail. In the discussion on the paper, Dr. Bantock affirmed that he believed in vicarious menstruation, and cited cases. Dr. Heywood Smith suggested the term "alternating," as more appropriate than "vicarious" menstruation. Mr. Tait had never been able to find but one authentic case himself; while he did not deny that the condition might exist, he thought that medical students ought not to be taught that epistaxis in young women was a common expression of vicarious menstruation.—*Ibid.*

Juniper Berries as a Diuretic.—The inspissated recent juice of common juniper berries is highly praised by Dr. Goldschmid, and it is recommended by Prof. Vogel of Dorpat, as the best diuretic for children. While being most effective, the remedy is exceedingly mild and altogether free from any unpleasant accessory effect. Two or three teaspoonfuls should be given daily, diluted with water and sweetened with sugar. Young patients take it very readily.—*Brit. Med. Journal*, Jan 12, 1889.

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ATHLETICISM.

Some months ago a Scotch newspaper conducted a "doctor's symposium" with a view to elicit the opinions of the profession upon the question as to whether the English race was undergoing physical retrogression. One of the questions—Do you think that the increased indulgence in physical sports has, on the whole, a good influence on health?—elicited a verdict almost unanimous that the influence was beneficial. One writer, however, has made a true observation to the effect that in most instances the general result of athleticism is not so much to make the weak strong as to make the strong stronger. And this is, indeed, the effect of this strange worship of muscle to which we have given ourselves up in the present day. The element of competition has destroyed the benefit of healthy exercise. So far as our colleges are concerned athleticism has run full tilt into amateur professionalism. If all men systematically were to practise, say, running, there would be doubtless great improvement in the general physique, but the encouragement given to races tends not to make the ordinary student give exercise to his limbs, but to encourage he whose limbs are already in good order to further efforts with the desire to reduce his time record. This desire to outdo rivals is undoing all the good that is to be derived from healthy exercise. What more pleasant than a walk across country with a friend or two, resting here or there to admire scenery or to examine flowers or rocks, but when such a walk is converted into exhausting toil by forcing the pace so as to make the distance in a shorter time than others did, then pleasure ceases and fatigue and exhaustion begin.

The Canadian profession have to consider the question whether they are justified in giving their full sanction to much of what is called healthy athleticism. Is there danger in this excess of snow-shoe tramping? We are inclined to consider that such exercise must be carried on with great caution in order that it may not develop into a source of danger to our young men. Hurried marches across the mountain at a forced pace throw a heavy strain upon lungs and heart, likely to cause eventual damage unless there be a careful grading of the amount of work suitable for each individual and the time in which such efforts are to be accomplished. In short, those who seek recreation and with it health must bear in mind that fatigue is not exercise, and that a sense of weariness means that too much work has been done. There is no health gain to be had out of exhaustion.

PRACTICAL SURGERY.

Those who have made a study of that curious and interesting creature, the modern medical student, will not have failed to notice that one of his characteristics consists in a tendency to cultivate the powers of memory and to neglect those of observation, to devote himself more to the science than to the handicraft of his calling. Experienced teachers find that many students can commit to memory the steps of an operation and be able to describe it faultlessly on paper, but would look puzzled and confused were they asked to perform the very same operation on the dead body. The question of introducing an examination in practical surgery has been under the consideration of the heads of the profession in Great Britain. The effect of such a change could hardly fail to be most beneficial. Practical operative skill would have to be acquired, and a new and startling interest would be added to the surgical demonstrations. A difficulty lies in the way of progress. Courses of instruction leading up to such an examination would require a large supply of subjects. Fortunately, in Lower Canada, such material can be freely obtained. With such opportunities at command, our surgical teachers have but to show a lead in this matter.

This important question was fully discussed at a meeting of the General Medical Council held in December last. The con-

joint boards in Ireland and the Universities of Cambridge and Glasgow have already adopted the change, and the example will soon be followed generally. The Council came to the conclusion that the performance of operations on the dead body was a highly important part of a complete test for the efficient practice of surgery, and recommended examining bodies to reconsider the means they might use for amending that part of their examination.

THE TREATMENT OF TABES DORSALIS BY SUSPENSION.

Prof. Charcot has been treating, during the past three months, a number of cases of tabes dorsalis by means of suspension. The treatment is carried out by means of a Sayre's ordinary suspending apparatus. The patient is suspended usually from one to three minutes every second day. In fourteen cases treated in this way, the beneficial results were very marked in eight, and in all there was more or less amelioration. The first effect usually noticed is a lessening of the inco-ordination. This showed itself even after the first suspension. A case is referred to where a patient was unable to move or even stand without assistance, while after about twenty suspensions he could walk several kilometres without the use of a cane. In all the cases there was marked amelioration of other prominent symptoms of this disease. The lightning pains, the bladder troubles, the anæsthesia, were found to have disappeared or were greatly relieved. In no case, however, was there noticed a return of the knee-jerk or a disappearance of the pupillary symptoms. The treatment was first practised Matchoukowsky of Odessa, who published a pamphlet on this subject in 1883. He was accidentally led to employ it from finding it beneficial in a case of tabes complicated with disease of the vertebrae.

No doubt we will soon know whether any permanent benefit follows this procedure, as cases of tabes dorsalis are unfortunately very common, and all our ordinary means are so worthless that anything that promises even relief will be eagerly seized upon by the physician.

CHRONIC COCAINISM.

From a considerable number of observations it would seem that hallucinations of general sensibility are the first and most pronounced symptoms of chronic cocaine poisoning. M. Magnan (*Le Bulletin Médical*) reports three cases presenting various symptoms, but in all, the most marked were hallucinations of general sensibility. Two of Magnan's patients believed they had microbes under the skin, while the third thought that he had crystals of cocaine. Visual, auditory and olfactory hallucinations are frequently present in chronic cocaineism, but they are later in making their appearance. Epileptic convulsions occur also. In two of the three cases reported they were present. Sensorial hallucinations do not usually form as prominent a feature of cocaine poisoning as they do of alcohol and morphine poisoning.

SLEEP.

From time immemorial, the physiology of sleep has been a subject of the greatest interest to the philosophical physician. To recount the views advanced to explain this truly wonderful phenomena would serve no useful purpose, except to emphasize how prone we are to be satisfied with crude explanations. The theory advanced by Durham and Hammond that sleep is due to anæmia of the brain has, unfortunately, done duty for many years. This crude hypothesis is still quoted in many standard works as the true explanation of the cause of sleep.

In a recent article (*Archives de Physiologie*, 1 and 2, 1889) Brown-Séquard shows that the condition of the circulation has nothing to do with the production of sleep, that sleep occurs irrespective of the condition of the cerebral vessels. He has proved that sleep occurs in guineapigs and rabbits after section of the sympathetic on each side, and in cats and dogs after section of the vago-sympathetic on one side and removal of the superior cervical ganglion on the opposite side. As these operations paralyze the cerebral vessels, we have normal sleep in spite of cerebral hyperæmia. Brown-Séquard looks upon sleep as the result of an inhibition of intellectual activity. The consideration of a number of associated phenomena which occur during sleep has led the distinguished author to the above

conclusion. During sleep there is an activity of certain parts. We have, for instance, contraction of the pupils, falling of the eyelids, contraction of palpebral orbicular muscles, contraction of the internal and superior recti, etc. As these phenomena are inhibitory, he considers also the loss of consciousness, the slowing of the pulse, and respirations as inhibitory.

This explanation of the phenomena that attend sleep is certainly more likely than that advanced by Preyer and others to account for them, on the ground that the cerebral cells are poisoned by the products of their own work. In a future article we intend referring to this subject, especially in connection with the subjects of toxic sleep and hypnotism.

—Hæsslin (*Munchener Med. Woch.*) has found concentric limitation of the field of vision in neurasthenia and other functional neuroses. He suggests the presence of such limitation as a test to distinguish between real and feigned symptoms following traumatism.

—In a recent lecture (*Le Bulletin Médical*) Charcot referred to some cases of exophthalmic goitre under his observation, where a slight degree of paraplegia was present. In its origin this paralytic condition resembles closely the "giving away at the knees" so frequently complained of by tabetic patients. Owing to its frequency, Charcot is inclined to look upon it more as a symptom than a complication of exophthalmic goitre.

—M. Edgard Hirtz says that in the immediate neighborhood of patches of urticaria a capillary pulse can be readily noticed after gentle pressure on the skin. He looks upon this sign as a proof of the vaso-motor origin of urticaria. A capillary pulse has, however, been noticed by other observers around the pustules of smallpox and in the vicinity of patches of erythema.

HYGIENE IN ITALY.—Travelling in Italy is not without its dangers. The land of poetry and art seems also the home of disease and dirt. Two very unpleasant visitors are at present there—smallpox and cholera. There has been great neglect in vaccination, especially in the northern provinces and islands. The vaccine lymph supplied has been of very poor quality,

having been criminally adulterated with glycerin and rendered almost useless. For this nefarious traffic certain Catanese are about to undergo public prosecution. Smallpox, however, is now thought to be subsiding in the Sicilian towns, Catania now recording ten cases and Messina only two per diem.—(*Lancet*, Dec. 1, 1888.)

Cholera prevailed extensively in the city of Naples during 1887, but the fact of its presence was not allowed to figure in the sanitary reports lest, amongst other evil consequences, a panic might arise amongst the purse-bearing English and Americans. Concealment was practised, and the chief civic authority of the year in question was actually complimented on the patriotic step he had taken in not giving alarm. Many Italian towns furnish no regular tables as to death-rate of the population, and others are not above suspicion of undue manipulation.

THE "LANCET" MEDICAL FUND.—The proprietors of the *London Lancet* many years ago, when the subscription and sale first reached 10,000 copies, discussed the prospect of appropriating some small sum to the source of a Compassionate Fund for the benefit of those members of the profession whom undeserved misfortunes had overtaken. At that time other pressing charitable necessities eclipsed the scheme, and for a time at least it was laid aside. The *Lancet* begins the new year with the announcement that with the co-operation of the presidents of the College of Physicians, the College of Surgeons and the General Medical Council, it has started an organization which will provide pecuniary help in small sums and upon cases of emergency to medical men, their widows and children. The *Lancet* is to furnish the sum of three hundred pounds a year, and it is hoped that this handsome annual gift will be largely supplemented by subscriptions from the well-to-do members of the profession. It is wisely proposed that the almoners of the fund shall have, at their discretion, the power to relieve urgent necessities either by direct gift or by means of a loan free of interest. The establishment of such a fund will prove a benefit alike to the sufferer as well as to the benevolent. Every medical man in good standing is likely, in the course of the year, to have calls made upon his purse

for the relief of some suffering brother. Such sums are capable of doing more good when put into a general fund administered by those who have gained experience in the management of such relief, and, on the other hand, an unfortunate man who, from illness or other unavoidable cause, can no longer keep the wolf from his door, would much prefer seeking help in the form of a loan from a fund established for that purpose rather than make application for pecuniary assistance to private individuals. The movement has our good wishes.

Medical Items.

—The volume (98th) of Braithwaite's Retrospect for July to December, 1888, has been issued.

—Krafft-Ebing of Gratz has been appointed successor to Prof. Leidesdorf of Vienna.

—Prof. Billroth's numerous friends and admirers intend celebrating his 60th birthday, which takes place on the 23rd of April.

—There are 852 medical students attending the different Swiss universities during the present winter session. Zurich heads the list with 264. The population of Switzerland is under three millions.

—An International Congress of Dermatology and Symptomography is announced to take place in Paris in connection with the International Exhibition on August 5th to 10th. The Presidents are Dr. Ricord and Professor Hardy. A number of important subjects will be discussed.

—Dr. Gowers has resigned his position in connection with the University College, London. It is unfortunate for students and medical science that distinguished English physicians and surgeons so frequently give up their teaching work at the very period of their lives when they are most useful.

—The following have been elected officers of the Nova Scotia Branch of the British Medical Association for the current year: For President, Deputy-Surgeon-General McDowell, C.B., A.M., D. (re-elected). For Secretary, W. Tobin, M.D. (re-

elected). Honorary Treasurer, Dr. Trenaman, City Medical Officer. Council: Drs. G. F. Black, Campbell, Farrell, Slayter, Surgeon Fowler, A.M.S., and Staff-Surgeon Sweetnam, R.N., H.M.S. Tourmaline.

AN UNCOMFORTABLE PATIENT.—A lawsuit interesting to medical men in obstetric practice has recently been tried in London. Dr. A. was engaged to attend Mrs. B. in her approaching confinement. In the dead of night Mr. B. summoned the doctor through the speaking tube at the side of the hall door. There was no undue delay, but still the anxious husband kept up such a din that the accoucheur declined to answer the summons, and refused to have anything to do with such an unpleasant patient. Another medical man attended the case, which appears to have gone off most satisfactory, but not satisfied with the course of events, the discontented husband sought Dr. A. in his consulting-room and attacked him both with tongue and fist. The magistrate who presided at the subsequent action for assault held that a medical man was quite justified in declining an obstetric engagement under such circumstances, and fined the defendant accordingly.

—Messrs. J. B. Lippincott Company announces to the profession the publication of a "Cyclopædia of the Diseases of Children," medical and surgical, by American, British and Canadian authors, edited by John M. Keating, M.D., in four imperial octavo volumes; to be sold by subscription only. The first volume will be issued early in April, and the subsequent volumes at short intervals. A thorough knowledge of the diseases of children is a matter of the greatest importance to most physicians, and as this is the only work of the kind that has been published in English, it will be invaluable as a text-book and work of reference for the busy practitioner.

—The mineral water of La Bourboule—of which there are two chief springs, "Choussy" and "Perrière"—is, of all known waters, that which contains the largest proportion of arsenic, allied with the best adjuncts for its assimilation. It is a natural arsenical medicament, far preferable to any pharmaceutical preparation, because it is in this form that arsenic is most easily digestible and most efficacious. By its use,

moreover, all those risks of error by excess of quantity, which are not entirely inseparable from artificial preparations made in the laboratory of the chemist, are avoided. One litre of the water contains 28 milligrammes of sodic arseniate (or at the rate of 1.96 grains per gallon); so that the third part of a litre (nearly three-fifths of a pint, or a large tumblerful) contains the average dose of arsenic pharmaceutically administered. Furthermore, the mineral constituents of the Bourboule water are the same as those of the blood. It contains about $6\frac{1}{2}$ grammes of mineral salts, viz., nearly three grammes each of chloride of sodium and bicarbonate of soda, with other minor elements in small proportions; making it equivalent to the "mineral serum of the blood, issuing naturally from the bowels of the earth." This mineral water is consequently, of all others, the best adapted to repair the waste of the mineral constituents of the blood; it alone combines all the properties which go to constitute the most fortifying, the most restorative, and the most easily assimilated medicine. It is eminently fitted for, and digestible by, delicate children, debilitated adolescents, and adults of weak constitution, on whom its revivifying influence is most remarkable. The dose varies from half a tumblerful to two or three tumblerfuls a day, one-half the quantity for children. It may be taken at meal-times, pure or mixed with wine. Sometimes it is best taken half an hour before meals. If the digestive organs are at all unfavorably affected by it, it may be warmed by the bain-marie, or mixed, either with a warm infusion of limes or with orange-peel juice, or Selters waters, etc. In case of colics or diarrhœa, two or three drops of tincture of opium or belladonna may be added. Bourboule water, used as a lotion, local douche, or pulverized in the form of spray, is, in general, an effective cure for slight cutaneous diseases, or affections of the mucous membrane, where accessible, especially when imbibed at the same time. It preserves the freshness and beauty of the complexion, and heals chaps, by restoring the suppleness of the epidermis, and undergoes no deterioration by exportation.