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### Original Communications.

## THE SPECIFIC ACTION OF RADIUM ON CERTAIN TUMORS AND ON CERTAIN REBELLIOUS SKIN-DISEASES.\*

#### By Drs. Louis Wickham,

Physician to Saint-Lazare; Ex-Chef de Clinique at the Saint-Louis Hospital; Director of the Radium-Therapeutic Research Work in External Pathology at the "Laboratoire Biologique du Radium de Paris," and

#### P. DEGRAIS,

Chief of the Laboratory at the Saint-Louis Hospital, Paris.

Gentlemen,—In Paris last year, at the ninth French Medical Congress, we read an article on the rebuilding of the tissue which comes after the exulcerative reactions caused by radium.

As a result of it, the erroneous belief has arisen with many of our professional brethren that our experiments turned out as we desired only after a necessary period of revulsion and exulceration.

To be sure, in the treatment of some diseases (pigmentary navus<sup>1</sup>, tuberculosis<sup>2</sup>, scarred fibro-sclerous frenum, etc.) it is necessary to fall back upon the destructive power of radium; and, as a rule, the remarkable manner in which the new growth takes place of its own accord makes us feel confident that occasion may frequently demand the use of this method.

However, it would be strangely lowering the true value of radium and ignoring the biological interest which is inseparable from it, to limit its action in that way.

In many cases radium is, first and foremost, an agent of special election, which acts as a specific remedy and deserves this

<sup>\*</sup>Tenth French Medical Congress, Geneva, September 3rd to 5th, 1998.

cognomen; that is to say, that without any inflammatory reaction resulting, without secondary exulcerative revulsion, without destruction, without radium dermititis, in a word, by the "dry method," certain tumors can be made to disappear, certain pathological tissues can be changed, can be turned from their pathological action, and be forced to give place to new tissues.

Having come, in the course of our fourth year of research work, upon the therapeutic action of radium in external pathology, it seemed interesting to us to separate from our general conclusions, which rest on our observation of six thousand or so applications of the radium apparatus to a great number of cases, the facts which bear on the specific action of radium.

This is our aim in the following report.

In certain neoplasms this specific action is exceptionally clear. Since the time of his first research work in 1905, long before the opening of the "Laboratoire Biologique du Radium," M. Wickham has been able to prove this action on cancers of the outer skin (epithelioma) and on cheloids.

He placed cushions of hydrophillium wadding (thickly heaped up, about one centimetre, sheathed by two plates of Hamilton gold-beater's skin) between the part treated and the apparatus, making a filter, which allowed only a small quantity of the very penetrating radium rays (B strong and Y) to pass through. By this means he saw the first cancers of the skin that he treated change and actually become cured without any super-added inflammation resulting.

In his article<sup>3</sup> published in the "Annales de Dermatologie," in October, 1906, in which for the first time in cutaneous radium-therapeuties really therapeutic quantitative analyses<sup>4</sup> were formulated and proved by the positive results, he ascertained that in eases of budding epithelioma their regression without a period of ulcerative reaction even after direct applications of strong radio-active power, is possible.

Since then our research has confirmed these first observations<sup>5</sup>, and by pushing forward into the realm of external pathology we have been able to establish and put into definite form the regular use of the different methods by which the specific action of the rays of radium has been utilized.

Among these processes it is necessary to pay chief attention to:

- 1. Those which make use of very strong rays B and rays Y by means of suitable "filterings" or screens.
- 2. Those which make use chiefly of rays B by direct<sup>6</sup> application of the apparatus (the applications being short in length).
  - 3. Those which combine the action of the rays B by multiply-

ing the rays Y (such is the method of the "Feu Croisé," of which more hereafter).

By these different methods, of course used according to the nature of the lesions treated, we have obtained cures without any inflammatory reaction resulting, and consequently proved the elective action of radium by very different means.

Indeed, the number of different operative methods is almost unlimited. If direct applications can furnish very different modalities, the ways of "filtering" are as numerous as a man can invent screens; these filters may be simple or combined with the "Feu Croisé" method.

However, all these methods do vary according to the radioactive power selected, according to the surface of the apparatus (dimensions and nature; varnish or cloth, etc.; division of the radium salt), according to the length of the applications and their repetition every day or at regular intervals more or less lengthy, etc. Hence the size of the field open to investigators may be judged.

Sometimes two different methods will produce results with common features. Here is an example of this: We know now that a weak application of rays Y used alone (4000 activity) for from 70 to 120 hours in succession is able to cure as rapidly and without inflammatory exulcerative reaction, a large budding epithelioma as well as this may be accomplished by a dozen hourlong applications with very strong quantities of radium (activity 50,000, 85 to 90% of rays B and 10 to 15% of rays Y).

4. It all comes back finally to a question of dosage. The aim of our experiments is to know what proportions (quantities and qualities) are necessary and sufficient to make the specific action of radium valuable. And if our experiments aim at arranging, facilitating and regulating these proportions, it is they themselves which rule all therapeutics. In fact, progress in radium-therapeutics has been rapid only since the day when, equipped with appliances of a more comprehensive nature, we were able to recognize the radio-activity actually made use of and to establish the first formulæ of quantitative analyses.

But what we wish to remember here is less the value and the history of the methods which make the elective action of radium profitable than the actual demonstration of its elective power.

In support of this we present to the Congress forty-three water-colored photographs which show the regressive evolution of epithelioma at different stages. The cures are made without exulcerative revulsion, as you see.

From such facts, which we perceived very early in our investigations, we have suggested the possibility of acting on malignant subcutaneous tumors.

Cancers of the breast have been the particular subject of our research, and if we cannot produce a statement of their complete cure, we are able to assert that in several cases which could not be operated upon we obtained an obvious influence over the tumor, which, as a result of treatment, was stopped in its development and in many cases kept on receding with a remarkable decrease in the accompanying pain.

Another effect of radium which it is important to notice is that which the very powerful rays may have without revulsion on the ganglion masses, caused by neoplastic encroachment. In a case of inoperable cancer of the breast, owing to glandular involvement and pressure on the trachea, we have obtained a very remarkable decrease in these subjective disturbances. Moreover, there is an edematous tumor of the arm, which has clearly become smaller as a result of treatment in the auxiliary region; all these results were obtained without surface reactions.

Are these not demonstrative facts? And are more of them necessary to bear witness to the truly elective specific properties of radium as a corrective of cancerous neoplasms?

In the course of our research work on the treatment of angioma (vascular nævi, wine-stains) by radium, we produced proofs of the same nature, and in our communication of October 8, 1907, at the Académie de Médecine<sup>7</sup> as well.

Large angiomatous surfaces, protuberant, erectile, throbbing, angiomatous tumors, real blood-red sacks, swollen wine-stains, could not be, without danger of hemorrhage, the seat of keen destructive reaction. The covering tissues should not be injured in the slightest degree.

With this in view, we have devised several methods of procedure, among which is that of the "Feu Croisé." This method consists in applying to the tumor several apparatus placed opposite to one another two by two, for a shorter time than that which for each of the apparatus caused a surface irritation. In length, the duration of the action as a consequence of the "Feu Croisé" corresponds to the product of the duration of the application of each apparatus, by the number of these apparatus. By this method all the rays act, both the very penetrating ones and those less so, with multiplication of the former and without surface reaction. Frequently we combined this method with the "filtering" method, and by these means were enabled to witness the dissolution of tumors, the disappearance of the throbbing, as

well as the loss of color of the angioma, which, after their giving way, have sometimes retained a surface contrasting only slightly in tint with the healthy tissues in the same region.

We have a whole series of water-colored photographs, the greater number of which deal with children; several angioma were genuine monstrosities. Every tumor, whether expanding or malignant in any degree, has benefitted very largely from this use of "dry" methods in the radio-active treatment.

But the specific action of radium is not limited to cancerous and angiomatous tumors. There is another variety of tumors, the cheloidian, which also derive benefit from it. In fact, without visible reaction, enormous cheloids may be made smooth, and the truly turgid appearance of certain complicated scars made by cheloids disappears, to be replaced by a flat scarred surface, much easier to conceal. Moreover, the specific action of radium has caused much of the pain which ordinarily accompanies cheloids to disappear.

Some water-colored photographs show the cure of these tumors by simple dissolution.

Such are the different observations which led us to communicate to the Académie de Médecine, on May 26, 1908, in the course of our report on the treatment of faulty scars, that cancerous, angiomatous, or cheloidian tumors might be united in the same group as far as the specific action of radium is concerned.

However, there is a whole other class of diseases in which radium may act as a specific.

Last year, at a session of our Congress in Paris, we placed before you an article written in collaboration with M. de Beurmann on the use of radium in certain diseases of the outer skin, inflammatory and pruriginous, which had as its aim the introduction of the analgesic action of radium.

Our later observations have merely strengthened our first conclusion. In fact, it is without determining the secondary inflammatory reaction that these affections must be treated. By applications of very short length, from one to three minutes a sitting, from a large and powerful apparatus, we found ourselves able to cure, without irritation, chronic eczema, lichen, neurodermititis. localized pruritus, and superficial neuralgia, especially that which follows the shingles.

Certain results were especially convincing. Here is an extract from an article which appeared in La Clinique<sup>8</sup>:

"A baby a year old was suffering from a bad case of pruriginous eczema, which, to its parents' great despair, had spread over its whole face and scalp. For six months, without any success, I treated it vigorously by the ordinary means. The baby cried without ceasing, and neither slept nor ate. I decided to use radium. M. Degrais applied our powerful apparatus of exterior radio-activity 580,000 and six centimetres in diameter, on each place, the first day for one minute and a half and for the same time on the following day. A fortnight later the mother wrote us that her baby was completely well."

Other results have confirmed these facts, showing not only the specific power of radium, but also that rays of weak penetration, especially rays Beta, have as well as rays Y specific power.

So, then, this elective property of radium, which deserves the name specific, extends to a great number of cases of widely different natures. Moreover, it is not only limited to the lesions we have mentioned; some of our cases of mycosis fungoid, of psoriasis, of keratosis, have derived benefit from it; but it was not our intention to mention them, as they are at present too rare.

It is well to notice that these "dry" methods do not arouse the slightest pain, and that the ease of the applications, together with this quality of painlessness, makes it a most favorable method for dealing with children of even the tenderest age.

Such are the facts we wished to impress. Are the best methods of treatment always those which avoid inflammatory reaction? Certainly not; and in many cases, from the practical and therapeutic point of view, certain combinations (4ry methods and inflammatory methods) are very useful; but the aim of this paper has not been to discuss the best methods of radium therapeutics, but merely the theory of the specific power of radium, as we saw it in our very earliest research work. We desired to establish this on a broader basis, and we think that our remarks have succeeded in doing this satisfactorily.

W. H. B. A.

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- 4. Analysis of the radiations exterior to the apparatus, alone usable; proportion of these exterior radiations in rays A, B and Y; duration and number of the necessary applications in connection with these analysis.

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- 7. Wickham and Degrais, "Treatment of Angioma (winestains and vascular tumors) by Radium." Revue de Médecine, June and July, 1908. Alcan, editor.
- 8. Wiekham. La Clinique, March 6, 1908. Doin, editor. "Treatment by Radium of Rebellious Diseases of the Skin and the Mucous Membranes."

#### A CONSIDERATION OF SOME FEATURES OF IN-FLUENZAL OTITIS AND MASTOIDITIS.\*

BY PERRY G. GOLDSMITH, M.D., Senior Assistant Department of Oto-Laryngology, Toronto General Hospital.

Mr. Chairman and Fellows,—I propose to discuss the subject of Influenzal Mastoiditis as much as possible from a clinical standpoint, giving brief notes on some cases which exemplify in a measure some of the features which stand out prominently in this disease:

1. Bacteriological Findings.—Speaking generally, the organisms found are staphylococci, streptococci and pneumococci, probably in this order as to frequency. Why is it that these common organisms can at certain periods of the year, when the peculiar type of colds called influenzal are prevalent, produce such rapid bone involvement, with all variations of symptoms? Is it due to something inherent in the individual, or some special lessening of the prophylactic power of his middle ear, or is it due to some undetermined difference in virulency of the organisms themselves at this period of the year? We all know that influenza varies greatly in intensity, as it were, and as to where it will strike, for example, the type producing peripheral neuritis, bronchitis, gastro-intestinal, cardio-vascular, etc., and is it not also, from our standpoint, correct to speak of a type seen in the air cells, as mastoid and accessory nasal sinuses? One may gain considerable help from the investigation of the bacteria, viz., a staphylococci culture with mastoid tenderness and free discharge is not nearly so much to be feared as a streptococcie or pneumococcie culture; in the latter, operation may be necessary without marked mastoid tenderness, and when only a temperature is to be accounted for. Personally, I consider the presence of the latter bacteria of sufficient gravity to permit a consideration of exploratory opening. The rapidity and profuseness of the culture growth may also aid in determining the virulence of the infection. One must not forget that the early bacteria findings may show streptococci and pneumococci, or even Kleb's Locffler, which later having died out are replaced by less virulent organisms, the resistance of the tissues being now too much damaged to take care of even less virulent organisms.

<sup>\*</sup>Read at the Opthalmic and Oto-Laryngological section, Academy of Medicine, Toronto.

- 2. Condition of Middle Ear.—A chronic middle ear suppuration, in my experience, seems to lessen the liability to acute attack of influenzal mastoiditis. If this is not the general experience, how are we to account for the comparatively few cases of acute attacks on old suppuration, wherein the patients themselves have all the symptoms of influenza. The healthy middle ear may be able to take care of the infection, while in the antrum and mastoid it goes on to a purulent process, being shut off by granulations and swollen mucous membrane in the additus ad Then absorption may take place in some instances with cessation of all trouble, but usually the infection process continues, and is eventually operated upon. The middle ear may be inflamed by organisms which are not allowed to overcome the prophylactic powers of the tympanum, and simply an effusion, either sterile or containing a few slew-growing staphylococci. The difference between the simple and purulent case is that pus cells in any large number tend to liquify the exudate, instead of depositing fibrin, and also lead to necrosis of tympanic tissues through their solvent action. It is, therefore, not surprising that in some cases we find extensive destruction of the membrani tympani and necrosis of the ossicles. A very mild infection may cause the latter, as in places the periosteum of the ossicle may be only a layer of epithelial cells.
  - 3. Course the case may take when mastoid antrum is invaded.
- (1) Congestion and inflammatory infiltration of the antral mucous membrane and small cells may arise and subside without any further trouble. This probably takes place in all acute middle ear inflammations, and accounts for the mastoid pain seen in the first twenty-four hours, and then disappearing.
- (2) Free formation of pus, retention, destruction of bone may follow, and is simply a further stage.

In the first stage we temporize safely, while with the later we wait, at the patient's risk.

The type of mastoid has a bearing on the course the case runs. The small, hard sclerosed bone offers resistance, while the large diplocic type appeals to invite further rapid necrosis; clinically, however, the opposite may take place.

4. Symptoms.—The ordinary symptoms of mastoid involvement—discharge, pain on pressure, dipping of posterior superior wall and rise of temperature—are familiar to you all. In influenzal cases most all of these, even sometimes discharge may be absent. The symptoms may be most misleading and the case give great concern or very false security.

Temperature.—My experience is that high temperature does not give any indication either as to virulence of infection or amount of destruction of bone. It may, again, be the only symptom other than aural discharge one has to act upon, and if unaccounted for in any other way, and associated with slight mastoid pain or deep pressure, is of considerable value in determining early operation. Even when due to mastoid involvement it does not necessarily follow that opening the bone will immediately reduce the temperature. The toxaemia may be so severe that several days must elapse before the temperature falls. Marked variations of temperature and profound toxaemia in cases lasting a week or even less point to lateral sinus involvement, and demand immediate and radical measures. I consider a two-hour chart alone of value, a morning and evening temperature may be very deceiving.

Pain.—During the first couple of days of acute otitis media mastoid pain is frequently present. It is found at the tip and antrum, and if the case goes on will later be found more general and centralized over the mastoid antrum or tip only. Pain is of more significance in streptococcic infections. The canal may be very tender, especially at the upper and posterior wall near the membrane. I think this is more common in influenza cases than the sagging of the wall. Pressure pain on the mastoid is very deceptive, and may even be absent.

Discharge.—(1) Profuse discharge—greater in amount than can be secreted by the tympanic mucous membrane—indicates a source from a larger eavity, and the only place this could be would be the antrum of mastoid and cells. Cessation of discharge and increased pain or earache points either to a closure of the membrane or swelling closing the additis. As mentioned above, the tympanum may now clear up and the mastoid disease go on.

Sagging down of posterior superior wall practically always occurs but late; tenderness to pressure of cotton tip probe is of very great value, and appears quite early.

5. When to Operate.—This point is very difficult to decide. I think during epidemic influenza we are justified in operating very early because we find in so many cases, with little objective symptoms, very great bone destruction. We may operate early and find almost no pus, simply a very vacular bone, but we at once place the patient safe and comfortable, and he rapidly gets well. I believe exploratory incision is justified in occasional instances. When we consider that most of the main symptoms may be lacking, that great destruction of bone may take place with

little or no pain, I think we should very carefully consider the advisability of early operative measures; especially is this the ease in streptococci infections with a condition of leucocytosis.

Treatment: Abortive.—Free and unobstructed drainage is the essential feature. If the case is seen before a perforation has taken place one should first sterilize the canal. The opening in the drum should be free and extend from the floor to the roof. One may quite properly extend the incision into the posterior superior wall if there is much congestion there. An anæsthetic may be necessary, gas or ethyl chloride, depending on the patient, but a solution of cocaine in analine oil and alcohol will answer very well. A small opening, badly situated for drainage, will require enlargement.

Local depletion of blood is of value. Leeches may be freely used early. Cold, in form of ice ceils, has not been of any permanent value in my hands; it may greatly mask the course of the disease, as the external evidence of the disease may go away while the destructive process continues in the deeper cells. The cases in which cold over the mastoid has apparently been of value are not eases of pus in the bone. The exudation is not yet purulent, but rapidly becomes so, and cold may retard this, and if used early enough not only will delay pain, but lessen the exudate, at any rate in the superficial cells. Rest in bed, free use of calomel and salines are essential points to carry out. Frequent and copious irrigations of the auditory canal with hot saline, hydray cyanide (1-5000), or similar preparation, greatly assist resolution and are very comforting to the patients. Strips of sterile gauze laid along the floor of the canal, and changed every hour or oftener, helps to keep the canal clean and assists the tympanum to get rid of the pus. Care must be taken that the gauze wick does not act as a plug, and if any doubt on this point occurs the wick had better be discontinued. Carbolic acid and glycerine used as ear drops are of value and give relief to pain. Frequent aspiration with a large Seigle speculum or Sondermanns or Mucks suction apparatus is of marked value in draining the middle ear rapidly. The condition of the naso-pharynx requires consideration, and I am sure the use of a strongly medicated vapor of oils and disinfectants thrown into the middle ear through the custachian tube is of decided value. Care must be taken that there is free exit from the tympanum through the drum-head, and that the vapor is not irritating. I do not use powders in the ear at all in these cases, for the following reason: I can see no use in blowing powder over a membrane (the drumhead) which has nothing to do with the disease. The inflammation which we are attempting to allay is beyond this membrane, and is reached only through a small opening (the perforation). Even if a small particle of powder should go through the perforation, what good it might accomplish would be upset by the blocking up of the hole. Free exit of discharge from the tympanum is the main consideration in our treatment, and we do not assist nature in removing this exudation by making the discharge thicker and blocking up the point of exit.

Operative Treatment.—I have nothing to say except that I believe it should be thorough, and especially the cells in the zygoma and tip thoroughly opened up. If extensive destruction is found beyond areas of hard bone, one should consider the advisability of uncovering the sinus, as a peri-sinus abscess was found in several of my eases when the sinus was covered by apparently hard, healthy bone. Generally speaking, the antrum should be reached, but the additus not necessarily disturbed. In chronic cases which have undergone an acute infection, I think we might very well, with advantage to the patient, especially so far as the hearing is concerned, leave the tympanic cavity alone—the so-called Heath operation.

84 Carlton Street.

## CONSERVATIVE SURGERY OF THE TUBES, WITH REPORT OF FIVE CASES.\*

BY L. W. COCKBURN, M.D., HAMILTON.

When watching a surgeon fish up and cut away ovaries and tubes for adhesions, thickening, cirrhosis or cystic degeneration, the thought has often occurred to me as to how the operator would relish having the corresponding organs in his own person so unceremoniously whipped off!

My leanings towards conservatism in these cases is the reason I am able to present brief notes of the five following instances of repair work done on diseased ovaries and tubes. With one exception, I have been able to keep all the cases under observation, and I am therefore able to speak from personal knowledge as to the subsequent course of each of the four cases I have been able to watch.

Case I.—Mrs. A. Consulted me October, 1898, for an abdominal tumour. Examination revealed an ovarian cyst on the left side about the size of an adult's head. Operation November 17, 1898, removal casy, few adhesions being encountered. After removal of the cyst, the right ovary was drawn up for inspection. It was in an undoubted state of cystic degeneration. It measured about 2½ inches in its longest diameter, and was proportionately enlarged in other directions.

I punctured the cysts, cut away their walls, and trimmed down the ovary as much as possible. Recovery uneventful.

This woman conceived, but I was obliged to stop the pregnancy on account of adhesions about the stump of the cyst on the left side tying down the uterus. For three or four years after the operation I examined this case about every six months to keep watch on the state of the right ovary. It never enlarged, gave no trouble; she menstruates regularly, and enjoys excellent health.

Case II.—Mrs. B. Diagnosis, double pyosalpinx following septic abortion. This woman was seriously ill. I advised immediate section, and asked for authority to act as I thought best in the patient's interest after the abdomen was opened and the exact condition revealed. This permission was refused, both the patient and her husband stipulating that nothing was to be removed.

I pointed out the danger of tying my hands in this way, but

<sup>&</sup>quot;Read at a meeting of Ontario Medical Association.

both husband and wife persisted that there was to be no mutilation. Operation March 9, 1907. On opening abdomen uterus tubes and ovaries found buried in a mass of adhesions. Large pyosalpinx on the right side, complicated with appendicitis—appendix being firmly adherent to the pus tube. Left tube and ovary inflamed, adherent and enlarged.

Left to myself, I should have tied off the appendix at its junction with the caecum, and then removed appendix, uterus, tubes, and ovaries in one piece. My instructions, however, were too explicit.

I therefore freed the appendix from the pus tube and removed it. I then freed the left tube and ovary as much as possible, and finally drained the right pyosalpinx through the vagina.

This patient made an excellent recovery. I saw her nine months after the operation; she was in good health and menstruates regularly, and, what is more, she did not spare me!

Case III.—Mrs. B. consulted me for pain, irregular menstruation, and sterility following abortion. Anxious for children. Bimanual examination revealed uterus retroverted, bound down. Tubes enlarged, tender, and also bound down.

Operation Nov. 9. 1907. Adhesions very firm and extensive, severed principally by seissors. Severing of adhesions carried out systematically till the uterus, tubes, and ovaries were entirely free on both sides. Fimbricated ends of both tubes sealed. Tubes opened, contents gently squeezed out, and a large probe passed down each tube to the uterus. Parts returned and abdomen closed, about a pint of saline being poured into Douglas' pouch.

Recovery uneventful. This lady wrote me under date of January 18, 1908, saying her health is now perfect. Her home is in the Southern States; she was visiting friends in Brantford, and had not returned home when she wrote me. I hope to hear she has become pregnant.

Case IV.—Mrs. D. Married about 5 years. Miscarried about 12 months after marriage. Miscarriage followed by "inflammation." and has not felt well since. Menstruation regular, but painful. General pelvic uneasiness. Coitus painful. No sign of pregnancy for the last four years. Anxious for children. Bimanual examination. Uterus more or less bound down, mass about the size of a small orange felt on each side. Operation November 14, 1907. Adhesions extensive about the sexual organs, but not very dense, carefully separated throughout, principally by seissors. Tubes gently squeezed from uterus outwards, a large probe passed down each, the parts returned, and the abdomen closed. Recovery uneventful.

All pain and discomfort completely relieved. On returning home this lady became pregnant. She is now in excellent health, and expects her confinement next September.

Case V.—Mrs. E. Married about nine months. Highly neurotic, suffers severely from insomnia, and can with difficulty be prevented from taking drugs.

Little or no complaint made of pelvic symptoms, but was very anxious for children, and requested examination with that object in view.

Bimanual examination under ether revealed a fixed and retroverted uterus, while the tubes and ovaries on each side felt hard and not very mobile.

Operation March 26, 1908. Uterus very firmly adherent posteriorly. Adhesions severed and uterus raised. Very dense adhesions were encountered between the right ovary and tube and the pelvic wall. Adhesions cut close to ovary and tube. Adhesions on the right side slight and easily separated.

On raising the organs well up after freeing all adhesions the tubes and broad ligament were seen to be studded with small cheesy-looking deposits I believed to be tubercular. As many as possible were removed. The left tube was opened without much difficulty, and a probe passed along it.

The condition of the right tube was not so satisfactory.

Its fimbriated end had vanished, and in its place was a smooth, rounded knob. I cut this off, found the opening into the tube, and passed a probe along it. The probe was arrested about half way by what I believe was a deposit of tubercle. I could not tunnel the obstruction, and I did not think it wise to resect the diseased segment of tube. I therefore lightly suspended the uterus and closed the abdomen.

Recovery uneventful. The neurotic symptoms and insomnia have almost entirely disappeared.

There has not been time yet to test this patient's ability to conceive. The left tube is potent, and should serve her purpose. If it does not, and her wishes for maternity are sufficiently keen, I would not hesitate to reopen the abdomen and resect the blocked segment of the right tube.

Discussion by Dr. S. M. Hay on Conservative Surgery of the Tubes:

I wish to congratulate the reader of the paper on the excellent results obtained by his methods; however, I think that perhaps a more extended experience might not prove so successful.

I am glad that the paper included conservative surgery of the ovary as well as the tube, as much more can be done on the

ovary than on the tube, with much better results. The surgery of the pus tube has passed through three distinct stages. First, Tait and his followers removed both tube and ovary, making a common channel. This necessitated the leaving of a small proximal piece of tube. Some patients were not cured, and came back and had the uterus removed, and a cure resulted. The uterus was thought to be the offending organ, while in reality it was the stump of tube left behind. Next, the French surgeons, blaming the uterus, removing all the appendages, and many times part of them not diseased.

Then came the present method of opening the abdomen and resecting the pus tube out of the bone of the uterus and sewing up the V-shaped wound with catgut. I would no more think of leaving a piece of diseased tube at the uterine end, than I would of leaving a long stump of appendix on the bowel. True, the woman is sterile, with the tubes gone, so she was before the operation, but you have relieved pain and other symptoms.

We should leave some ovarian tissue wherever possible. Every woman has a right to have her menstrual function preserved to her during the child-bearing period where at all possible; she is better for it in every way. Diseased ovaries are more likely to restore themselves than are diseased tubes.

In badly diseased ovaries save some part of ovarian tissues.

In badly diseased tubes remove all the tube into the uterine tissue.

Discussion by Dr. T. Shaw Webster on Conservative Surgery of the Tubes:

Conservative surgery of the tubes and ovaries should be endeavored, and if it fails to cure, medical operation may then be done. By the vaginal route they can be done easily, and if pus presents good drainage will save the patient from danger of sepsis.

Salpingostomy should always be attempted, and will frequently give the desired result.

## HYDROTHERAPY ON MENTAL AND NERVOUS DISEASES.\*

BY A. T. HOBBS, M.D.

Superintendent of Homewood Sanitarium, Guelph, Ont-

Winternitz, in his system of physiologic therapeutics, says: "Hydrotherapy is the systematic application of water at various temperatures and pressures, and in varying forms, to the surface of the body for dietetic, prophylactic and therapeutic purposes."

To properly carry out the principles of hydrotherapy as laid down by Winternitz it is necessary to have an apparatus whereby water may be applied at an exact dosage, that is, it must be capable of absolutely regulating temperature and pressure to suit the various conditions which we are called upon to treat, if we are to meet with success.

We are still in the embryonic stage at the Homewood, as far as hydriatic treatment is concerned, having only had a year's experience with the apparatus as designed by Simon Baruch, of New York City, but the results thus far obtained are very encouraging, and lead us to hope that much good may be done along the lines of hydrotherapy. I do not think that I can lay too much stress upon the fact that the treatment must be exact to be successful. Just as you give exact doses of drugs for certain conditions, so you give exact doses of water—you expect certain results to follow the dose of the drug—and you also expect certain results to follow your water dosage—therefore, I say, be exact.

The good effects of this system of treatment can easily be nullified in the hands of unskilled and unintelligent operators; furthermore, each patient is a law unto himself and demands close study by the physicians and the bath attendant. Subjective symptoms cannot be entirely ignored, and sometimes too strict adherence to a definite prescription may do more harm than good, and the bath attendant must learn by experience to recognize any error in the prescription. On the other hand, however, due care must be taken that the patient does not lead physician and operator astray by misleading statements to their own detriment.

The rationale of treatment in eases ranging from the mildest form of neurasthenia to the gravest form of melancholia generally resolves itself into a question of suitable diet and its

<sup>\*</sup> Read at the Meeting of the Canadian Medical Association at Ottawa, June, 1908.

proper assimilation. I am well within the mark when I say that 80 per cent. of the mental and neurasthenic admissions to the Homewood present, in addition to their many symptoms, an emaciated appearance and a body weight much below par.

Any method of treatment that will improve assimilation in these neurotic and mental patients is a valuable adjunct to our armamentarium.

In hydrotherapy, scientifically applied, we have, without doubt, an aid to general treatment that will materially assist us in the recovery of our patients.

Time does not permit me to go extensively into the action of water on the various functions and organs of the body, but let me point out a few facts that can be easily demonstrated with the proper apparatus.

#### (a) On the Circulation.

Baruch says: "The circulatory system forms the great highway upon which the products for the maintenance and growth of the organism are conveyed, and by which the products of waste and repair incident to the performance of all functions are eliminated. It, therefore, follows that any agent which is capable of exercising the slightest influence upon an apparatus, which is destined for these important tasks, must be capable of exercising in disease an analogous influence upon the organs and their functions which come under the domain of its influence. These are some of the effects of water so applied:

Cold water applications cause rise of blood pressure.

Warm water applications cause fall of blood pressure.

Cold enhances the tone of the entire circulatory apparatus.

Warmth diminishes the tone of the entire circulatory apparatus.

#### (b) On the Composition of Blood.

After cold there is an increase of red and white blood corpuscles and hæmoglobin.

After hot air and steam baths a diminution, followed by moderate increase in robust people.

#### (c) On Respiration.

The greatest irritation of the respiratory centre is produced by a cold application on chest and abdomen; then follow deeper respiration and an increased consumption and a freer carbon dioxide elimination.

It must be noted, however, that after cold applications respiration is effected by the extent to which reaction ensues; if the latter is good then respiration becomes much deeper and more air is inspired into the lungs. If mechanical influences be added to thermic, as in douches, the effect upon the respiratory centre is much more enhanced.

#### (d) On Muscular System.

The fatigue curve is much increased by cold, that is, the working capacity is much improved.

Warm baths, unaccompanied by mechanical effect, lower the working capacity. Combined with mechanical effect, warm baths increase working capacity, but not to the same extent as cold, or alternating hot and cold.

#### (e) On Tissue Change.

The influence of hydriatic procedures on circulation, respiration, composition of the blood and muscular action have been stated. If these effects are far-reaching in health, how much more marked must they be in disease. The quantity and quality of the blood in various organs and parts of the body are improved and controlled, and since functional activity is the chief agency in producing tissue change, and this activity is dependent upon the blood supply in the organs, we may, by influencing the latter, readily exercise a powerful effect upon the former. That thermic and mechanical irritation, applied by means of water upon the cutaneous surface, arouses cell activity and effects tissue change is a fact that is based upon substantial experimental data.

Accepting these conclusions as correct, as they are attested to by practical demonstration, we are then in possession of an important agent with which to treat successfully many forms of mental and nervous diseases met with, not only by the specialist, but by the general practitioner.

Our plan of treatment, to be more specific, has been as follows: Neurasthenia.

In all bath treatment it is a fundamental principle that reaction must follow the application of cold water. Equally as important is it that no procedure should be prescribed which will in any way frighten a patient, or cause that patient to lose confidence in a method which is new to the large majority of them, therefore, in the treatment of neurasthenia I make it a practice to employ the milder measures at first and gradually work up to the highest degree of hydrotherapeutic treatment. For example: the patient is only sent to the bath three times a week for the first week, and if their reactive capacity is fair and they have grown accustomed to the procedures as ordered, they are sent daily. A general prescription reads as follows:

Hot air box to point of perspiration.

Circular douche, 100° to 90°-2 minutes-15 lbs.

Fan and jet douche to entire body, 90° to 80°—10 lbs.—1 minute.

Lower minimum temperature 2 degrees and increase pressure 2 lbs. each treatment until a temperature of 60° and a pressure of 30 lbs. is reached.

The above prescription is suitable for a female; male patients can be treated more actively, beginning with lower temperatures and higher pressures.

After the patient has become accustomed to the jet douche, the Scotch douche (alternating hot and cold) may be used with good results.

Usually a walk in the open air to the point of fatigue is ordered to follow the bath.

Melancholia.

The same treatment as outlined above. If it is impossible to place the patient in a hot box owing to some mental phase, I would suggest as a substitute the circular douche at 102° or 104° for two minutes before reducing to 90°, as it is important that the body be well warmed before any cold is applied.

In the melancholic the Scotch douche used freely all over the body markedly stimulates the circulation and imparts a sense of well-being substituting the depression; and also considerably lessens the lethargy, inclining the patient to greater activity. As the treatment progresses day by day, the periods of euphorbia lengthen and the depression decreases, until finally normal mental health is restored.

Following the bath a vigorous towelling is indicated, more particularly in cases where reaction is not marked. This is usually required in the early stages of treatment in the majority of cases.

In case of any difficulty with the patient refusing the douches the nurse steps into the bath and manipulates the patient and at the same time reassures him.

Dementia Praecox.

#### (a) Hebephrenic Type.

Some good has been obtained in these cases by the use of stimulating baths of various kinds. The patient should go to the bath daily, and the treatment should be the same as in neurasthenia and melancholia, and gradually be increased in strength. Circular, rain, jet and Scotch douches are indicated, with lowering of minimum temperature and increase of pressure each day until the highest point of efficiency is reached.

#### (b) Catatonic Type.

As above. Results not so encouraging.

Manic Depressive Insanities.

#### (a) Manic Type.

Control excitement by continuous bath, 100°—one-half to six hours, according to condition.

Hot or cold packs (cold preferred), continued until excitement subsides. If patient falls asleep, leave him in the pack until he wakens; in the meantime keep him well covered with additional blankets. On removing patient from the pack a half bath, 80° or 85°, should be quickly given, with active friction to restore tone of dilated blood vessels, and then return patient to bed. Pack repeated two or three times a day if necessary.

#### (b) Depressive.

The same as in melancholia.

Exhaustion Psychoses, or Exhaustion Following Acute Disease. Half bath, or drip sheet, or affusions night and morning—temperature 80° to 85°—duration 3 to 5 minutes, followed by a vigorous towelling and patient returned to bed, and in serious cases the temperature may be reduced to 70°, or even 60°.

Baruch says: "Let not the fear of cold water deter anyone from resorting to cold affusions in these desperate cases. They are the hydriatic substitute for digitalis and alcohol." I can fully endorse this statement, as I have recently treated a serious case of exhaustion and collapse in this way, and I can assure you that the result has been most gratifying.

Alcoholism.

Prescription (daily):

Hot air box-140° to 185°-10 minutes.

Circular (Rain) douches, 100° to 60°—3 minutes—25 lbs.

Scotch douche, 100° to 60°—5 minutes—25 lbs.

Rain douche, 60°-30 seconds.

Hot air box may be omitted after first two weeks.

Morphinism—Cocainism.

For the unpleasant symptoms of pain and restlessness during and following the reduction of the drug, I know of nothing better than full tub bath—temperature 102° gradually increased to 110°—duration 15 minutes at least—may use this twice daily.

In our year's experience with general hydrotherapy most excellent results have been obtained in neurasthenics, melancholics, exhaustion psychoses, mania depressive insanity and alcoholics. In the other psychoses only fair results have been obtained.

Incidentally, it has been found that the use of the periueal douche—temperature 85°—pressure 25 lbs.—2 minutes—patient sitting or standing over it, has been useful in chronic constipation. This is only of recent date, but so far results are good. The jet douche—same pressure and temperature—applied to the abdomen is also useful in torpor of the bowels. Sitz bath in sexual neurasthenia—warm, gradually reduced to cold—5 to 10 minutes.

Much of the success of hydrotherapy at the Homewood is due to my first assistant, Dr. E. C. Barnes, who has been untiring in his efforts to place the treatment on a practical basis. In this he has been materially aided by the intelligent co-operation of the nursing staff. By means of lectures and practical demonstrations the nurses have been instructed in the physiology and anatomy of the skin and the various organs and functions of the body that are affected by hydriatic procedures, the effects of the various kinds of baths and the indications for their use, but, above all, they have been taught to be exact in all procedures, and have now learned to fully appreciate the necessity of this by the gratifying results that have been obtained.

#### Selected Articles.

## THE DANGERS OF HYPERALIMENTATION OF THE TUBERCULOUS.

By MARCEL LABEE.
Physician to the Paris Hospitals.

The great majority of physicians hold that the alpha and omega of the treatment of tuberculosis are: fresh air and hyperalimentation. The principal of fresh air is universally accepted, but that of hyperalimentation is beginning to be adversely criticised. Yet it still represents the prevailing doctrine, if I am to judge from the answers given at the clinical examinations by the physicians of to-morrow, and from the type of overfed and obese phthisical persons which appears to constitute the ideal of many therapeutists, and if I consider the routine treatment in most sanatoriums at home and abroad.

The idea of hyperalimentation owes its inception to two very interesting observations. First, the good results obtained by Dr. Debove, who fed through the stomach tube anorexic, dyspeptic, tuberculous objects who could tolerate no food, and vomited everything they took. With two "meals" a day, consisting of milk, eggs and powdered meat, he managed to fatten subjects whose emaciation nothing had previously proved capable of arresting. It was but a step from this to the establishment of hyperalimentation by milk, eggs and powdered meat. Then came Professor Richet's experiments, who showed that feeding dogs on raw meat rendered them vastly more resistant to tuberculosis. It was thought allowable to argue from the dog to man, apparently oblivious of the fact that the dog is much more carnivorous than man, and that food capable of fortifying a carnivorous animal may kill a herbivorous animal, and prove very injurious to an omnivorous animal.

Simple, straightforward formulæ always carry great weight with both physicians and patients; consequently the conception of hyperalimentation was readily received, the object for the phthisical being to get fat, cost what it may.

In hospitals, sanatoria and in private practice all tuberculous patients were subjected to hyperalimentation, and many who had read about it put the plan in practice for themselves, so that it is among practitioners and educated people that the system makes most victims.

Hyperalimentation has been a fertile source of sickness. But does it cure tuberculosis? Were that so, we might be prepared to condone many shortcomings in exchange for one great benefit. Unfortunately that is far from proven. We must be on our guard not to be misled by the fact that the tuberculous patient is putting on weight. As has been very aptly remarked by Darenberg, the tuberculous subject does not get well, because he puts on flesh, but recovers because he is able to put on flesh. The increase of weight is a sign of improvement, an element in the prognosis, not a factor in the cure. Even so, too much confidence must not be reposed therein. One meets with bacilli-ridden patients in whom the lesions continue to run their course, in spite of the fattening process, and cavities are met with even in the obese.

The damage due to hyperalimentation in the subjects of bacillosis-a euphemism for tuberculosis-has been proclaimed by many authorities, and it deserves to be made known to practitioners generally. The most frequent evil is gastro-intestinal disturbance as in the following case: M. P., an engineer, 34 years of age, had an attack of hemoptysis in 1900, with laryngitis and pulmonary tuberculosis. He was advised to live in the south, and to undergo a course of hyperalimentation. He obeyed, and indeed improved on the prescription. to the ordinary regimen, he ate every day of his life twelve eggs, from twenty to twenty-four ounces of raw meat, together with two sherry glassfuls of cod-liver oil. In a very short time this regimen became insupportable, so that he gave it up every fortnight for a few days' rest. Under this treatment he pulled himself together and rapidly put on flesh, so that ere long he weighed over eleven stone.

In 1902 he had another attack of bronchitis, accompanied by marked weakness and loss of flesh. Again he tried hyperalimentation, and he recovered in four months. Since that time he has retained the habit of eating large quantities of meat.

In the beginning of 1907 his stomach began to give him trouble. He complained of epigastric pain, commencing four hours after lunch and lasting until dinner time. The pain sometimes came on at night so sharply as to wake him up. He suffered from constipation, and voided much mucus and fragments of membrane with the motions. There was no vomiting.

Later on he complained of a good deal of pain in the track of the ascending colon, with extreme tenderness to pressure. His medical attendant suspected appendicitis, and the advisability of an operation was discussed. The urine was examined, and sugar was found to be occasionally present.

It was then that he came to consult me. The tongue was covered with a thin, yellowish-white fur, the mouth was bitter, and the breath fetid. The stomach was normal, the liver slightly enlarged. The urine when treated with nitric acid, gave a red-dish-brown color. It should be mentioned that the pulmonary lesions appeared to be quite cured. I diagnosed gastro-enteritis, with hepatic congestion, caused by excessive meat dict. I directed the patient to have the urine analyzed more fully, under suitable conditions, and ordered him our usual trial regimen to be followed for three days. Some time after I was informed by letter that he felt so much better under the trial regimen, which had modified and regulated his alimentary habits, that he had not thought it necessary to come back.

In some instances the congestion of the liver is very pronounced, and is the first thing to attract attention, as in the following case: M. D. was suffering from pulmonary tuberculosis of the fibroid type, limited to the right apex. He was a large eater, and drank freely; in fact he overfed himself. He was dyspeptic, was suffering from diarrhea, and had been losing weight for some time past. An appropriate regimen brought about an immense improvement, the diarrhea ceased, and he put on fifteen pounds in a few months.

In the following year, feeling weak once again, he sought to recover his strength by systematic hyperalimentation. He took large quantities of meat at both meals, in addition to twelve ounces of raw meat daily. Thereupon he began to gain in weight, but digestion became troublesome. He complained of epigastric distention and suffocation, and from time to time he had attacks of diarrhea with matutinal nausea. I found that the abdomen was much distended; there was congestion of the liver, with a subjective tinge, a furred tongue and a foul breath.

I dispensed with the raw meat, reduced the allowance of food, and gave him some alkaline powders. The diarrhea lasted for some time, there being two or three liquid stools every morning. He lost weight slightly. The state of the lungs remained unchanged. Within three months his condition had notably improved, but the intestine remained tender, especially in the right iliae fossa. Three years later he came to see me again. He had returned to the practice of eating and drinking too much, and he ate far too rapidly. He had gained in weight, but the morning waterbrash had returned, and he had two pasty motions daily.

The ingestion of excessive quantities of meat intensifies the fever of tuberculosis; indeed, in some cases it seems to be the sole cause of the fever. Here is an instance of the kind.

M. J., aet 16, developed bacillosis a year ago, with a rise of temperature. No definite lesion could be made out. For a year past he had been pale and weak, although he had continued his athletic training, especially boxing. His father, who felt anxious about him, brought him to me on January 21st, 1908. The young man had splendid muscles, but, in spite of his promising appearance, I found signs of commencing tuberculosis at the right apex, with dry crackling. I sent him to the Bligny Sanatorium for treatment.

The result was very satisfactory. On May 23rd he came back to see me, and I found that the pulmonary lesion had quite cleared up. In four months he had put on 16 pounds in weight. He had, however, from time to time, a rise of temperature, and I was struck by the furred state of the tongue, and the foul breath. The patient told me that at the beginning of his residence at the sanatorium he had had some diarrhea, and that digestion was somewhat labored and accompanied by hiccough. He related, further, that he had undergone excessive hyperalimentation; in fact, it was a sort of competition between him and his fellowpatients which should eat the most. At each meal he ate several big pieces of bread, several thick slices of meat, and of a morning, in addition to the sanatorium allowance, he took a whole box of sardines in oil. That was enough to explain his rapid gain in weight, his digestive disturbances, and his occasional febrile attacks.

The following is an even more typical observation. It serves to show to what excess the hyperalimentation may go when undertaken in good faith, reinforced by a strong will.

A young practitioner, at the termination of his resident appointments, was attacked by slight tuberculosis of one apex. He proceeded to rest himself, plus excessive hyperalimentation. He gained in weight, but very soon digestive disturbance and fever made their appearance. Anxious about himself, he consulted several physicians, who auscultated him, declared his pulmonary lesions to be cured, and advised him to go on with his rest and hyperalimentation. The fever and digestive disturbance persisted until one day, when, for the first time, a medical friend palpated his stomach and discovered a much enlarged liver. He placed him on a moderate lacto-vegetarian dict, on which he lost weight, and steadily improved, the fever disappeared, strength returned, and he was enabled to resume practice.

Dyspepsia, gastro-enteritis, hepatic congestion, and prolonged fever are the commonest accidents induced by hyperalimentation, but they are not the only ones.

Enteritis may be complicated by appendicitis, as in P. and A. It may be, as Lucas Championniere suggests, that excessive meat eating is responsible for a certain number of cases of appendicitis.

Various forms of dyspepsia may be caused by the regimen upon which the tuberculous are placed. Sometimes it is of the nature of gastric hypersecretion, with hyperchlorhydria due to the strain thrown upon the digestive glands; sometimes, on the other hand, we get gastric atony, with hyperacidity due to secondary fermentations. Mouisset states that neurasthenia may be induced by this alimentary intoxication.

The kidney may suffer, and we may get albuminuria, with symptoms of nephritis, caused, or at any rate aggravated, by the abuse of meat (Robin). At the Climato-Therapeutic Congress at Cannes in 1907. Dr. Boureart related a number of cases of uremia supervening on excessive raw meat diet; and Renon relates the case of a fellow-practitioner, act. 55, who succumbed to an attack of uremia after a course of intensive zomotherapy prescribed for fibroid phthisis. Ognatowski's experiments and the still pending experiments which I have undertaken with the assistance of Dr. Thaon on feeding herbivorous animals on meat, clearly show that one of the principal effects of a meat diet is damage to the kidneys and albuminuria.

At a later period hyperalimentation is responsible for disturbances of nutrition, such as biliary lithiasis, urinary lithiasis, obesity, gout and diabetes.

The abuse of a meat diet and the auto-intoxication thus caused may determine cutaneous cruptions, such as acne, eczema, urticaria, furunculosis, etc.

It may indeed aggravate the respiratory symptoms by setting up attacks of bronchial and pulmonary congestion, asthma, and hemoptysis (Petit). Sabourin has demonstrated the influence of hyperalimentation on the production of hemoptysis in certain tuberculous subjects with diseased livers.

Dr. Chauffard has witnessed the supervention of renal lithiasis following hyperalimentation, and Professor Robin, in a patient who took large quantities of raw meat, eggs, and ham, found an increase in the exerction of uric acid amounting to 40 grs. a day, followed by pyelitis, the inflammation of the urinary tract only ceasing when the hyperalimentation was discontinued. Dr. Mousseaux reports several cases of tuberculosis, in which,

after improvement had followed a course of hyperalimentation, the patients were obliged to go to Contrexeville in consequence of attacks of renal colic, with the expulsion of gravel or calculi. Demons and Poussin report cases of young subjects confined to bed on account of coxalgia, etc., who developed renal lithiasis after hyperalimentation.

Lastly, Sabourin points out how difficult it is to effect a cure in tuberculous occurring in obese persons or persons who readily put on flesh, and shows the advantage that attends a regimen calculated to moderate nutrition in tuberculous subjects whose external health is too exuberant.

To sum up, excessive nourishment, especially in the shape of meat, is apt to give rise to a whole series of disturbances—some mild, some grave, some early, some late. The practitioner should be on the look-out for these, so as to combat them at the onset.—Medical Press and Circular.

## RELIEF OF RETENTION OF URINE BY SUPRAPUBIC CATHETER.\*

W. T. BELFIELD, M.D., CHICAGO.

The physician occasionally finds a patient suffering from complete retention of urine, which cannot be relieved through the natural channel, usually because of false passages that have been made in endeavors to pass a tight stricture or hypertrophied prostate. When satisfied by a patient trial that his efforts to pass a catheter through the urethra must be futile, the physician must make an artificial exit for the urine. How shall this be done with the least detriment to the patient?

Our text-books advise (1) suprapublic aspiration, repeated if necessary; if the patient still fails to void urine naturally, (2) a cutting operation, perineal or suprapuble.

The objection to repeated aspirations which honeycomb the suprapubic tissue, is sufficiently obvious; and the difficulties and dangers of perineal urethrotomy without a guide are well known to all who have performed it.

For many years I have done neither, but have employed a measure which is as little dangerous to the patient, and as easy

<sup>\*</sup> Clinical lecture at Rush Medical College.

for the physician as is aspiration, and yet solves the problem completely. I have never seen this simple procedure described in our text-books; yet it is probable that others have used and described a device that so easily relieves the patient from the distress and danger, and the physician from the perplexities of a serious situation.

This patient whom I now present is one of many illustrations of the value of this measure. Seven days ago he sought my aid for relief from the agonies of complete retention of urine that had existed thirty-six hours. The cause was a tight stricture of the bulbous urethra; and false passages already made defeated a patient effort to enter the bladder.

Without anesthesia, a trocar and canula No. 14, French scale, was passed into the bladder in the median line about an inch above the symphysis. The trocar being withdrawn, a soft catheter, No. 8 French, was passed through the canula far enough to carry its end to the bottom of the bladder. The canula was then withdrawn, leaving the catheter in its place. The catheter was attached to the skin by adhesive plaster; and after the urine had escaped the free end of the catheter was tied in a knot to prevent dribbling. The patient, who was allowed to be out of bed, was instructed to untie the knot every five to six hours, void urine through the catheter, and then retie the knot. Urotropin was given internally.

For five days no attempt was made to pass the stricture, although during the last two of these days some urine trickled out of the meatus when the patient urinated through the catheter. During these five days the false passages in the urethra were healing, and the edema of the bladder-neck and prostate was subsiding. Two days ago a cautious attempt to pass a Banks' bougie was successful, and the stricture was immediately dilated to 21 French. As the urethra was now open, the suprapubic catheter was withdrawn, and its track left to heal spontaneously. The patient states that since the withdrawal of the catheter no urine has escaped through the puncture, which, as you see, is scabbed over and dry. It always heals when the obstructions in the natural channel are removed.

Sometimes one fails to enter the bladder through the urethra after four or five days' rest: in this case the suprapulic catheter may be left in position two or three days longer. Should the urethra still be found impassable (which in my experience has never happened), a cutting operation may then be considered, the patient being in far better condition to stand it because of the week's rest of the bladder. Should still further delay be

considered best, the catheter should be removed, cleansed of the adherent urinary salts, and reinserted; the track into the bladder will remain patulous for a short time.

Should the obstruction be an enlarged prostate, and prostatectomy be considered unwise, the patient may wear the suprapuble catheter for an indefinite time, withdrawing it every day or two for cleansing. Patients easily learn to remove and reinsert the catheter through the fistula; one clderly patient of mine wore the catheter in this way for six years. Another, who had a cancer of the prostate that prevented urination, secured entire freedom from urinary troubles during the last nine months of his life through this device.

Other conditions in which the suprapubic catheter is useful are sometimes met, such as severe prostatic suppuration.

In case the physician decides to make perineal section for an impassable stricture, a small curved trocar and canula can be passed into the bladder above the symphysis, and a filiform passed through the canula into the deep urethra as a guide; indeed, one is sometimes fortunate enough to pass the filiform through the stricture from behind, when it cannot be made to pass from in front.—The Medical Fortnightly.

## TECHNIQUE OF OPERATION FOR PRIMARY LACERATIONS OF THE PERINEUM.

By Dr. Robert W. Stewart.

The gradual descent of a normal fetal head through a normal pelvis should not cause solutions of continuity in the soft parts, but narrowing of the bony parts of the pelvis and consequent pressure upon as well as stretching of these soft parts; the existence of old cicatrices in vagina or vulva, with the loss of elasticity; disproportion between fetal head and the canal through which it must be driven; the too rapid descent of the head; the failure of the head to flex at the perineum, and the consequent presentation of one of the greater diameters; the too rapid anterior rotation of the head in occipito-posterior positions; its failure to rotate completely, or, worse still, posterior rotations of the occiput—are all frequently met with, are all

<sup>\*</sup> Read at meeting of Obstetrical Society, of Cincinnati.

deviations from the normal, and are all capable of producing more or less severe lacerations. Where instruments are used or other manipulations employed, the danger of producing tears is greatly increased. In short, it may be affirmed that but few women escape at least the slighter tears, and many suffer grievously from them, and the obstetrician is not always to blame. This affirmation is made in spite of the opinions of some obstetrical authorities. If it were not true, the gynecologist would have less work to do, at least in the way of plastic operations. Consequently, a very careful examination of the soft parts should be made immediately after the delivery of the child, in the interim between that and the expulsion of the placenta. This is easy of accomplishment, because the tissues are all distended and open to inspection.

By separating the parts the larger lacerations are easily seen, but in order to avoid mistakes, the surfaces should be rubbed clean of blood with gauze sponges dipped in a solution of bichlorid of mercury (1.2,000) or lysol (1 per cent.); then by inserting the finger into the rectum and putting the vaginal tissues upon the stretch a complete view of the parts can be obtained. The result will be to show not only superficial tears, but the deeper and more important ones. To make this examination, the patient should be put upon her back and a strong light brought to bear upon the parts. The thighs should, of course, be flexed upon the abdomen.

The degree of laceration should determine the subsequent procedures, for it is still a mooted question as to whether the purely superficial separation should be interfered with or not, for the good reason that most superficial tears will heal of themselves. and there is always a possibility of adding to the possibility of infection by adding stitch-holes to the already lacerated tissues. Per contra, it may be said that in this day of thorough asepsis the latter danger should not be a very great one. The rule should be that when the structures below the epithelium have been invaded it is safer to close the wound, especially those in the vagina, because stitching them does not give much pain. Where, however, the deeper structures are seriously wounded, and particularly where there can be no reasonable hope that the parts will be restored to their normal conditions by the natural process of healing, resort must be had to repair, the extent of which will necessarily depend upon the amount of damage which has been done. For those superficial wounds, those which go just below the skin or mucous membrane, a stitch or two will cause perfect closure; for those which involve fascia or muscle, the apposition

of the edges should be made with all the care that one would exercise in bringing together the edges of any incised wound. It is of the utmost importance to make this coaptation particularly complete in the upper ends of the long tears, for thus the burrowing of the lochial discharge is prevented. Whenever the writer has been careless in these respects he has been chagrined at the poor results obtained. In his judgment, there are two factors which tend to produce bad results in the hands of even skilful obstetricians—failure to cleanse the wounds of blood and possible disease germs, and failure to bring the edges of wounds accurately together. In the hands of the incompetent or the careless, the opportunities for having bad results are practically too numerous to deserve mention.

In very superficial tears the sutures should be made with chromicized catgut (ten-day), and may be running or interrupted. In the deeper wounds they should always be interrupted, for the simple reason that breaking of any part of a running suture lets down the whole structure, while the breaking of one interrupted suture does not invalidate the integrity of the whole, but only of a very small part. Another reason for preferring the interrupted sutures is that there is less danger of damage from the nozzle of the syringe in the hands of carcless or incompetent nurses. In this connection it may be permitted to say that more than once the writer has viewed with alarm and indignation vaginal stitching that has undoubtedly been plowed up by a strenuous or careless nurse.

Inasmuch as the vaginal tissues have not only been torn, but also distended and driven forward by the descending part of the fetus, the sutures—the alternate ones, at any rate—should be inserted a quarter of an inch from the torn margin, pointed downwards or towards the vulva, brought out at the bottom of the wound, re-entered at this point, and brought out again opposite the point of entrance on the other side. The object of this procedure is to draw the tisues more nearly into their normal position, and thus to insure more perfect coaptation and union. The stitches alternate to these may be drawn across the wound from side to side, and including the bottom of the wound. Thus the wounds are closed down to the perineum, and frequently nothing else is necessary, for the integrity of the parts may be thus so completely restored as to necessitate at most a superficial stitch or two to bring the edges of the skin together. When, however, the tear is down to the muscle or into it, the perineum must be restored by passing sutures, preferably of silkworm-gut, from side to side, entering just outside the torn margin, then passing deeply into the so-called body of the perineum in order to get a good purchase, and thence to the other side and out upon the skin at a point opposite to that of entrance.

In those cases in which the tear is complete, the rectal edges of the wound should be brought together before putting in the This is best done by entering the needle high perineal sutures. up near the angle of the tear and just above the rectal mucous membrane, pass the needle at an acute angle to line of laceration to the extent of a quarter of an inch at least, and deeply enough to get a firm hold upon the tissue; bring the needle out at the point indicated and thence across to a point a quarter of an inch beyond the opposite line of tear and at a height which corresponds to that of exit, thence deeply through the tissues to a point just above the mucous membrane and opposite to that of original entrance. Tie each suture when completed, leaving the knot in This is to be continued until the rectum has been the rectum. restored, and then the perineal sutures should be placed.

After the work has been done as far as has been indicated, the parts should be practically in the normal position, and as far as sutures can put them the integrity of the parts should be restored. It may be necessary to put an occasional additional suture into the vagina to bring the torn edges more completely together, but if the work has been carefully done not many such stitches will be needed.

After catheterization and a vaginal douche of lysol solution (1 per cent.), the parts should be covered with aristol or some other antiseptic powder, an occlusion pad applied and held in place by means of a T-bandage.

If the stitches have been accurately applied there will be no necessity for frequent douching; indeed, the less frequently it is done the better, for the reason that if the lochial flow has not been contaminated there is no danger of sepsis from that source, and if it has been contaminated no amount of vaginal douching will do any good.

There remains but one question to discuss—how soon should the perineum be repaired? The answer would appear to be, immediately, for by so doing the danger from sepsis is materially lessened. At the same time so many contingencies may arise to make immediate operation inadvisable that the work must be postponed. Postponement for twenty-four or even thirty-six hours makes no appreciable difference in the healing process, but, of course, it does make a great difference in the danger of infection.

#### **Editorials**

#### ST. LUKE AS A PHYSICIAN.

It is generally understood that St. Luke was a very learned and skilful physician. One of the most pleasing references to this great physician may be found in a sermon by the Rev. Arthur B. Conger, Rector of the Memorial Church of the Good Shepherd, Rosemont, Pa., on St. Luke's Day. October 18, 1908, and published in the New York Medical Journal, November 15th. It is probable that St. Luke was a freed-man, or one of the Libertini, born in Lucania, in Southern Italy. He completed his medical studies at the great school of Tarsus, where he met St. Paul and "learned Christ." His writings in the New Testament, especially his original writings in Greek, showed that he was highly educated in the broadest sense of the words. He was designated by St. Paul as "the beloved physician." We know that St. Luke and St. Paul saw much of each other, especially at times when the latter suffered great physical pain. St. Paul and St. Luke met at Troas, it was after the former had been detained in Galatea "by the infirmity of his flesh." Again, when they met on the road to Jerusalem, St. Paul had had "the sentence of death in himself." and supposed he was dying; but the ministrations of St. Luke were given with great care and zeal, and were attended by such excellent results that the great apostle Paul was able to continue his good work for many years thereafter.

After referring to some of the incidents of St. Luke's life, the rector spoke as follows about members of the medical profession and their co-adjutors, the trained nurses: "Now, here, if you will permit me, I wish to find the fundamental relation of the priest to the physician. It is personal. It is founded upon appreciation of gifts and culture, of fidelity to duty, which, when necessary, is so self-sacrificing as to border upon, if it does not often reach, the heroic. If I may be pardoned for momentarily giving this sermon a personal note, I should like to grasp

the opportunity to say that in my experience I have found no class of men who had the brains, knowledge, culture, and conscientious devotion to what appeared to them to be their duty, exhibited by physicians. And I should like to say a word for their most able co-adjutors, the trained nurses. They differ, of course, like every other class taken from our imperfect humanity. But, on the whole, I do not believe that any other vocation develops in women equal sagacity, skill, and delicate manifestation of tact and sympathy. And, while there are probably those who fail to appreciate them. I think they have the regard and in many cases real affection of the great majority of their worthy patients."

#### THE PRIEST AND THE PHYSICIAN.

In this article we shall consider the priest as one who acts as a mediator between man and the Divine Ruler, without any references to churches or denominations, but havin, in mind the fact that in the New Testament Christ is designated as a Priest.

In the sermon referred to in the previous article, the Rev. Mr. Conger took as his text the following: "Give place to the physician, for the Lord hath created him; let him not go from thee for thou hast need of him. There is a time when in their hands there is good success. For they also shall pray unto the Lord that he would prosper that which they gave for ease and remedy to prolong life." Ecc, xxviii. 12-14.

The rector urged strongly a more cordial relationship between the physician and the priest. He said: "Please do not leave word that we be excluded from the sick-room; it may be that some priests have not every gift of delicacy and tact, but might not the same be said of some physicians? I think you will find in all but exceptional cases, typhoid fever for instance, that religious people physically benefit by our visits, and in a large percentage also of those whose spiritual life may gain its first serious impulse through the chastisement of illness, wisely directed by the experienced priest."

In an editorial in the same issue of the New York Medical Journal we are told that Mr. John Brooks Leavitt, one of the wardens of St. Mark's Church, published a letter in the New York Times. November 9, in which he stated that "the medical profession and the clergy have drifted into such antagonism that doctor and parson too often glare at each other over the dying bedside, each regarding the other as an intruder, the clergyman thinking the doctor to be godless, and the latter looking on the former as a simpleton."

That a statement like this should appear in a paper such as the New York Times, and that it should come from a warden of an Episcopalian Church is simply astounding. Who and what are we, as physicians, that we should ever presume to stand between a dying patient and one of God's priests? We are glad to be able to say that we know of no antagonism between physicians and priests in this country which would go so far as to prevent both from ministering to a dying man. There may be some difference of opinion as to the advisability of allowing a priest to visit a patient when life is not endangered: but we hope there are very few in our profession who try in any way to prevent the visits of the patient's priest or pastor, providing the latter shows an inclination to be reasonable, as he generally does, according to our experience.

We quite agree with the final sentence in the editorial under consideration: "It is surely true that co-operation rather than repulsion is manifested whenever the priest and the doctor meet at the bedside of the sick. And so may it ever be."

## BANQUET TO DR. GEIKIE IN DETROIT.

The "Old Boys" of Trinity Medical College, Toronto, and a certain number of graduates from other medical institutions resident in Detroit and Windsor, tendered to Dr. Walter B. Geikie, the well-known Dean of Trinity until June, 1903, and for several weeks after the last session of the college had ended, a banquet at the Cadillac, Detroit, October 17th, 1908, under the

chairmanship of Dr. Hislop, of Detroit. Interesting and kind speeches were delivered by Drs. Samson and Casgrain, of Windsor, and Drs. Knill, Palmer, Lennox, and others of Detroit.

Dr. Hislop, in proposing the health of their guest, said: "I feel it a great honor to preside at a banquet given in honor of so eminent a guest. It gives me great pleasure to find so hearty a response from the Canadian graduates of Detroit and Windsor who are assembled here to-night to meet the grand old Dean who has been justly termed the Dean of the medical profession of Ontario. We are glad to know that, in recognition of his long and faithful services to education in Ontario, our guest was honored last year by Queen's University conferring upon him the degree of LL.D." He concluded by saying: "Dr. Geikie, it affords me great pleasure indeed to have you present here at this banquet of the Canadian graduates as our deservedly honored guest."

Dr. Geikie, the founder of Trinity Medical College, in replying, spoke with much carnestness and affection about the career of his college, especially emphasizing the grand work she had done for so many years in the cause of medical education without any cost to the Province, and he expressed his deep sense of the very great injury done to practical medical education in Toronto by her destruction in 1903. He said this injury was so great that it will take years and much hard work to undo its disastrous results, and that it is being increasingly plored by every true friend of practical medical education all on. Canada and wherever the widespread reputation of this famous college had gone.

In Toronto, for more than fifty years prior to 1903, when students of medicine were much fewer than they are now, there were two medical colleges. They both did excellent work, which was much the better for the stimulus of healthy competition, ever an indispensable aid to full success. Long ago it was well and truthfully said that monopoly in educational, as in all other work, is the grave of excellence, and that nothing more certainly encourages negligence and ignorance. It is never desirable to have a number of students attending any one college so large as to make it impossible to take an individual interest in them. It

is equally undesirable that the faculty of any one medical college should be so large as to make it practically unworkable. This necessitates the subdivision of all large subjects into several small parts so as to give an insignificant portion only, to each of the many teachers. Under such circumstances neither teachers nor students can be interested in their work as they should be. Without this interest, enthusiasm is impossible, nor can many of the students so taught pass their examination creditably, or become as efficient physicians and surgeons as the public have a right to expect all Canadian medical graduates to be. Those students who pass well under disadvantages so great deserve the utmost credit.

A special feature of the banquet was the presence of Mr. Harold Jarvis, formerly of Toronto, the well-known tenor, whose splendid singing was highly appreciated.

#### ANAPHYLAXIS.

The dreadfully sudden deaths that have occurred immediately after the administration of antitoxin, especially in those who are subject to asthma, has led to a great deal of experimental work, with some therapeutic result. We now understand that these unfortunate individuals are highly sensitive to some constituent of the horse serum, probably the proteid content. Perhaps, too, the unpleasant symptoms that occur in some persons after eating mussels, honey, eggs, raspberries, etc., are due to the same kind of susceptibility. The fault in every case lies not in the serum or the article of food, but in the individual. To this peculiar phenomenon the term anaphylaxis has been applied.

We now know that many, if not all, of these sudden deaths were due to the fact that the serum was introduced into a vein. Many patients have been very sick after the administration of diphtheria antitoxin, have developed urticaria, but they usually recover in a few days. When, however, the for-

eign proteid of the serum is introduced into the blood-stream the individual is overcome in short order.

The practical application of this knowledge is to use the greatest precaution in administering any serum. Select a portion of the body where there is no large vein. If the patient has suffered from asthma, urticaria, angioneurotic ædema, or other allied neurosis, give only a portion of the dose at first. It has been shown that all the unpleasant symptoms will develop from a small dose, but, of course, not so acutely as from a large dose. After waiting an hour, the rest of the tube may be injected with perfect safety, provided the patient has not been affected.

It is interesting, too, in this connection to note that Rosenau and Anderson (Hygienic Laboratory Bull., No. 45) have some experimental evidence to prove that puerperal eclampsia is a form of anaphylaxis. They sensitized female guinea-pigs by injecting extracts of their own placentas. A little later, the same extract produced convulsions and other toxic symptoms. The experimenters found that it required what may be called an incubation period of seven days before the anaphylaxis developed, and that when once sensitized, the animals remained so for a long period, two years in a guinea-pig. We await with great expectation the results of some further observations they are now making.

### THE DEANSHIP OF THE MEDICAL FACULTY.

Dr. R. A. Reeve's resignation of the position of Dean of the Medical Faculty of the University has been accepted. In our last issue we expressed our own opinion, and probably the opinion of the University world, respecting the admirable work accomplished by Dean Reeve during his term of office. Dr. Reeve has issued the following letter to the members of the Medical Faculty:

"Dear Doctor,—I desire to sincerely thank the members of the Medical Faculty for the courtesy and consideration extended to me while Dean, and to be peak for my successor the continuance of that sympathy and support which were so helpful during my twelve years' tenure of office. Yours faithfully."

(Signed) "RICHARD A. REEVE."

After the last meeting of the Board of Governors of the University of Toronto the following announcement was given to the press: Dr. C. K. Clarke, of the Toronto Hospital for the Insane, was appointed Dean of the Medical Faculty of Toronto University, to succeed Dr. R. A. Reeve, whose resignation was accepted. Fitting reference was made to Dean Reeve's services. Dr. Clarke, in addition to his duties as Superintendent of the Asylum, is also conducting psychiatric researches on a large scale with the co-operation of medical men at other asylums. It is understood that it is the intention of the Government to appoint him as head of the psychiatric wing in connection with the new General Hospital scheme.

Dr. Clarke received his medical education in Toronto. During his student days he did a certain amount of work in the Hospital for Insane under the guidance of that distinguished alienist, the late Dr. Workman. He became a member of the College of Physicians and Surgeons of Ontario in 1887, and graduated from the University of Toronto M.B. in 1878 and M.D. in 1879. For many years he was Superintendent for the Hospital for Insane, Kingston, and was removed to Toronto about two years ago.

The excellence of his work while in Kingston has been generally recognized in all parts of the continent, and Queen's University honored him by conferring upon him the degree of LL.D.

Dr. Clarke is possessed of culture, literary talent, ability of various sorts, together with pleasant manners and a charming modesty which is seldom seen in this strenuous age on this continent. We believe the appointment is eminently satisfactory in all respects.

### BIRTHDAY HONORS IN GREAT BRITAIN.

On the last King's Birthday the following members of the profession were honored: Sir Alexander Critchet, the eminent surgeon oculist, was made a Baronet; Sir Donald McAlister,

Principal and Vice-Chancellor of the University of Glasgow, was made a Knight Commander of the Bath. Mr. Jonathan Hutchison, the well-known surgeon, received the honor of knighthood.

In this connection we find a letter in the British Medical Journal from Mr. Garry Simpson, of London, who writes as follows: "Has not the time arrived for the members of the medical profession to show in some tangible form their appreciation of the valuable services rendered to medicine and surgery by Sir Jonathan Hutchison? I am convinced that if a representative committee be formed and a fund opened, nearly every practitioner would be only too pleased to subscribe to some tribute of his great work."

### ONTARIO MEDICAL ASSOCIATION.

The next annual meeting of the Ontario Medical Association will be held in Toronto on June 1st, 2nd and 3rd, 1909. The following officers were elected last year to look after the interests of the Association at the coming meeting:

President.—Dr. H. J. Hamilton, Toronto.

Vice-Presidents.—Dr. R. R. Wallace, Hamilton; Dr. A. Dalton Smith, Mitchell; Dr. A. M. McFaul, Collingwood; Dr. George Field, Cobourg.

General Secretary.—Dr. E. Stanley Rycrson, 243 College Street, Toronto.

Assistant Secretaries.—Dr. Samuel Johnston, 169 Carlton Street, Toronto; Dr. J. E. Davey, 145 King Street, Hamilton.

Treasurer.—Dr. J. Heurner Mullin, 201 James Street South, Hamilton.

Chairman Committee on Papers and Business.—Dr. Herbert Bruce, 64 Bloor St. East, Toronto.

Chairman Committee on Arrangements.—Dr. Bruce L. Riordan, 73 Simcoe Street, Toronto.

The Committee again decided to adopt the system of dividing up into sections, of which the following is a list, with their officers:

Surgery.—President, Dr. G. A. Bingham; Secretary, Dr. A. B. Wright.

Medicine.—President, Dr. W. H. B. Aikins; Secretary, Dr. F. A. Clarkson.

Gynecology, Obstetrics, and Diseases of Children.—President, Dr. Adam Wright; Secretary, Dr. J. A. Kinnear.

Eye, Ear, Throat and Nose.—President, Dr. D. J. G. Wishart; Secretary, Dr. Colin Campbell.

Preventive Medicine.—President, Dr. Sheard; Secretary, Dr. C. J. Hodgetts.

General sessions will be held in the afternoons and on one evening, the sections of Surgery. Obstetrics and Medicine meeting every morning and one of the special sections on each morning.

The Committee on Papers and Business have been successful in securing promises of papers from the following gentlemen: Dr. John B. Deaver, Philadelphia; Dr. E. F. Cushing, Cleveland, on "Copious Water-drinking in Typhoid Fever"; Dr. W. P. Manton, Detroit; Dr. Little. Montreal; Dr. C. H. Vrooman, Winnipeg; Dr. A. Baines, Toronto; Dr. McFaul, Collingwood; Dr. J. Morris Slemons, Baltimore; Dr. Ellice McDonald, New York; Dr. J. M. Elder, Montreal; Dr. J. M. Rogers, Ingersoll; Dr. Hadley Williams, London; Dr. H. B. Anderson, Dr. W. McKeown, Dr. Dwyer and Dr. C. B. Sluttleworth, Toronto; Dr. E. Ryan, Kingston; Dr. A. E. MacColl, Belleville; Dr. W. Spankie, Wolfe Island.

In order to get in closer touch with the various city and county medical societies throughout the Province, a motion was passed making the presidents of these societies corresponding members of the Committee. As some difficulty has been encountered in securing their names, the Secretary will be much obliged if the gentlemen occupying this position will send him their names and addresses. They will be kept informed from time to time of the work done by the Committee.

### ONTARIO MEDICAL COUNCIL.

A special meeting of the Ontario Medical Council was held November 17th to 20th to consider the revision of examination tests and other important matters pertaining to the medical profession in the Province. The President of the Council, Dr. Glasgow, who opened the session, remarked that during the last seventeen years there had been a great many changes, and it was time for a revision of the curriculum for examinations. It was now generally acknowledged that the matriculation examination was not sufficiently high. The profession in Ontario should set a particularly high standard, but for some years past the matriculation examination had been a reproach. Another very important matter was that of interprovincial reciprocity.

Dr. Ryan, Superintendent of Rockwood Asylum, Kingston, outlined the most important changes advocated in the examinations by the Education Committee of the Council. A very important provision in the recommendations of the committee was that of raising the standard of matriculation practically 25 per In chemistry the committee were recommending that the course as given by the various universities should be adopted and that two years in chemistry and the passing of two examinations should be demanded. Dr. Ryan did not favor reciprocity with Great Britain or European centres where conditions were fixed and the professions crowded, but he did believe that reciprocity with the great West would be of vast advantage to all graduates. It was quite impossible in the smaller centres of population to have such hospital or clinical advantages as were to be found in the Eastern colleges. It was also provided in the report that a student failing to pass in one-third of the subjects should not be allowed to try again till the next year. Alluding to the raising of the matriculation standard, Dr. Ryan remarked that if the higher percentage now asked for by the Council had been exacted in the recent examinations 25 per cent. of the students would not have graduated.

The Council proceeded to discuss the report clause by clause. In the course of an animated debate, Dr. Britton, of Toronto, said he believed they might easily go too far. Many men of lowly birth who were a credit to the medical profession would still be holding the plough if they had been required to pass the senior matriculation examination. And thus, eminent men as they were now acknowledged to be, they would have been lost to what he might eall their closed circle.

Dr. Henry, of Orangeville, said they had heard threats of that nature for the last twenty years. He thought it must come from other than Government quarters, as the Legislature was interested only in raising the standard.

A letter from Dr. Parsons, of Coe Hill, asked for his reinstatement. Dr. Glasgow explained that the writer had been struck off the list for unprofessional conduct. It was referred to the Registration Committee.

On Dr. King's suggestion, supported by Sir James Grant, it was decided to add a two months' course in electricity and X-rays to the curriculum recommended by the Council. Dr. King said there was no department in Toronto where students could learn the use of electricity in medicine, and as it was no longer a fad, but a serious problem, he thought all students should be acquainted with it.

Sir James Grant said that several departments of electricity had been established in London, and if they were to keep pace with the times they must keep the students posted in the use of it in their profession.

The Discipline Committee presented the following report:

"Your committee ordered to inquire into the conduct of E. M. Cook, Esq. M.D., and D. Webster Shier, Esq., M.D., beg respectfully to submit the following report to your Council: 'Your committee met and consulted with Mr. J. W. Curry, K.C., counsel for the Discipline Committee, and instructed him to prepare the necessary notices and cause them to be served upon Drs. Cook and Shier. We beg to report that upon the necessary notices being prepared and an attempt having been made to serve same, it was found that Dr. E. M. Cook was not capable of being served, and instructions were asked for with reference to continuing the prosecution against Dr. D. Webster Shier alone at the present time. Your committee considered the question and concluded it was advisable to not proceed against Dr. Shier alone, but to delay proceedings with the hope that Dr. Cook could be served. Your committee respectfully forward the above report and ask that the matter be referred back to them for further action.' "

The report of the Education Committee contained a clause that a fifth-year student should spend part of that year either as a house surgeon in a hospital or as assistant to a regular practitioner.

The Text-book Committee reported that certain books be stricken from the list and others added. This was adopted.

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Dr. Jarvis thought that more instruction should be given in diseases of children. After some discussion it was decided to lengthen the course in this subject in the intermediate year.

Several students who had failed on one subject in their final examination by a very small margin, and showed up well in other subjects, were admitted by the report of the Committee on Complaints, which was read by Dr. Ryan, and sanctioned by the entire Council.

Efforts will be made in future to restrict examiners from asking students "catchy" questions. The results last year were serious, it was pointed out, and a student should not be asked anything outside his text-book. The using of technical terms, of which some of the Council could not cipher out the meaning, was to be brought to a stop. The motion, which was carried unanimously, also states that in future proper names must not be employed to designate diseases, and they urge elimination of any ambiguity.

A motion that teachers should not be allowed to examine on the subject which they taught, except in anatomy and physiology, was made by Dr. Vardon, and caused considerable discussion. Opinions on both sides were advanced. The motion was carried by a vote of 13 to 9.

Dr. Britton moved that all fifth-year men be compelled to do work in a hospital. The great objection to this was that the hospitals would not admit any student not a licentiate to administer chloroform.

A committee comprising Drs. Hardy, Moorehouse, Britton and Ryan were appointed to interview superintendents of hospitals and bring in a report.

### NOTES.

We learn from the British Medical Journal that the International Congress of Hydrotherapy held its fourth annual meeting at Abbazia September 28, 29, 30.

The nurses of Toronto and their friends held a very pleasant entertainment, known as "The Fair of All Nations," at Massey Hall, November 12, 13, 14. The total receipts were about \$2,600, out of which the net profit made was about \$1,500. This will be added to the fund to be used for the erection of a Home for Nurses in Toronto.

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A new association, to be known as the Manitoba Medical Association, was recently organized, with the following officers: Dr. J. R. Jones, of Winnipeg, President; Dr. Macdonald (Brandon), 1st Vice-President; Dr. Macrae (Neepawa), 2nd Vice-President; Dr. Halpenny (Winnipeg), Secretary; Dr. Kenny (Winnipeg), Treasurer; Drs. Hicks (Griswold), D. G. Ross (Selkirk), Keele (Portage), Speechly (Pilot Mound), and Harrington (Dauphin), Executive Committee; and Drs. Blanchard and Moody (Winnipeg), Auditors.

The first woman who has had the honor of being elected Mayor in Great Britain is a well-known physician. Dr. (Mrs.) Garrett Anderson. Dr. Anderson was elected Mayor of the city of Alderburgh at the election held November 23rd. In addition to her professional duties, she has taken a great interest in public matters for many years. As far back as 1870 she was elected at the top of the poll for Marylebone on the first School Board for London. She is 72 years of age.

The Nominations for the Lord Rectorship of the University of Edinburgh were made October 20th, at a mass meeting of the students, held in the University. Mr. Churchill, M.P., was nominated on behalf of the Liberals, and Mr. George Wyndham on behalf of the Conservatives, while Professor Osler of Oxford was nominated as an independent candidate. At the election Mr. George Wyndham received 826 votes; Mr. Winston Churchill received 727 votes, and Dr. Wm. Osler received 614 votes.

## Banquet to Dr. Riordan.

Dr. Riordan's many friends were much delighted to see him after his return from New York looking sound and fit as of old. A number of his intimate friends entertained him at dinner in the Toronto Club on the evening of November 4th. Those present had a very happy time indeed, as things went off with a hum which cannot be described, but was very highly appreciated by both guest and hosts. The following were present: First, the genial guest, Dr. Bruce L. Riordan, and with him Drs. Allen Baines, W. H. B. Aikins, J. O. Orr, G. R. McDonagh, A. P. Caven, H. J. Hamilton, J. D. Thorbarn, A. Primrose, H. A. Bruce, Samuel Johnston, A. H. Wright, H. B. Anderson, G. A. Bingham, A. H. Garratt, E. E. King, J. T. Fotheringham, J. F. W. Ross, J. Silverthorne, J. Milton Cotton.

D. King Smith, R. J. Dwyer, and J. R. Serson, and also Messrs. W. A. Wilson, G. G. S. Lindsay and John Massey.

### Donation to Toronto Western Hospital.

A very handsome donation of \$25,000 has recently been made to the Toronto Western Hospital. The name of the donor is at present unknown. It is hoped that the by-law will be passed in January whereby this hospital will benefit to the extent of \$50,000. It is also hoped that one or two pavilions will be erected in the near future. At the last meeting of the Board the officers elected for the year were: Mr. E. B. Osler, M.P., Hon. President; Hon. T. Crawford, M.P.P., President; Mr. D. Fasken and Mr. H. Langlois, Vice-Presidents; Dr. Thomas McCullough, Medical Superintendent; Dr. Price-Brown. Chairman of the Management Committee: Dr. J. B. Gullen, Treasurer; Dr. John Ferguson, Secretary; Dr. A. A. Macdonald, Dean of the Medical Staff. The other members of the Board are: Chancellor McKay, of McMaster University; Mr. H. C. Tomlin and Mr. Randolf Macdonald.

# Personals.

Sir James Grant, after spending a week in Toronto, returned to Ottawa November 23rd.

We learn with pleasure that Dr. William A. Young. 145 College Street, Toronto, is rapidly recovering from his recent severe illness.

Dr. J. T. Gilmour, of Toronto, was elected President of the American Prison Association at the meeting held in Richmond. Virginia, November 19th.

Lieut.-Col. J. A. Grant has been permanently appointed Principal Medical Officer of Military District No. 11, in the place of Lieut.-Col. Nattress, deceased.

Dr. Ernest Jones has been appointed Pathologist and Neurologist at the Toronto Hospital for Insane, in the place of Dr. J. G. FitzGerald, who retired last October to accept an appointment in Boston, Mass.

Dr. Lemon has been appointed resident physician, and Dr. Caulfield, late interne pathologist, Toronto General Hospital, resident pathologist at the Muskoka Hospital for Consumptives. Gravenhurst.

Dr. W. F. Adams, who formerly spent four years in China. returned to that country last month. He left Toronto November 22nd, and expected to sail from Seattle November 24th. He expects to take charge of the hospital at Yo-Chow, Province of Hunan, situated about 800 miles up the Yangtse-Kiang River.

Dr. C. D. Parfitt, who was for six years physician-in-charge of the Muskoka Free Hospital for Consumptives at Gravenhurst, Ont., and has been for the last seven months resident consultant to that institution and the Muskoka Cottage Sanitarium, has resigned his position. Dr. Parfitt will remain in Gravenhurst and continue practice in pulmonary and laryngeal tuberculosis.

At a meeting of the Board of Trustees of the National Sanitarium Association, held in Toronto November 20th, Dr. Alfred H. Caulfield, of the Toronto General Hospital, was appointed Resident Pathologist to the Muskoka Sanitarium and the Free Hospital for Consumptives. Dr. W. S. Lemon was added to the resident staff of both institutions. Dr. W. B. Kendall continues in his position as Medical Superintendent of the two institutions.

# Obituary.

### SIR HENRY PITMAN, M.D.

Sir Henry Pitman, Registrar of the College of Physicians of London, died November 6th, aged 100. He reached the age of 100 July 1st, 1908. On that occasion he received many congratulations and the following telegram from His Majesty the King: "I am commanded by the King to offer you his cordial congratulations on the attainment of your 100th birthday, and to express his sincere hope that you may be spared for many years. His Majesty is well aware of the valuable services you rendered to the medical and surgical profession while acting as Registrar of the College of Physicians. (Signed) Knollys."

### GEORGE ROOT, M.D.

Dr. George Root, formerly of Fonthill, Ont., and lately practising in Alliance, Ohio, died as the result of a gun accident at Berkendale, near Huntsville, November 7th, aged 28.

## THOMAS M. WILSON, M.D.

Dr. Wilson, of Atwood, Ont., died of glanders at the Presbyterian Hospital, Chicago, November 19th. He is supposed to have become infected while pursuing a post-graduate course at the Rushwell Medical College.

## WILLIAM STEPHEN, M.D.

Dr. Stephen, formerly of Toronto and Tillsonburg, Ont., died at Vancouver, B.C., October 20th.

## SAMUEL PASSMORE MAY, M.D.

Dr. S. P. May, who was for over fifty-one years in the service of the Province of Ontario as an official of the Educational Department, died October 20th, at his residence, 514 Parliament Street, aged 80.

## Book Reviews.

Practical Points in Anesthesia. By Frederick-Emil Neef. B.S., B.L., M.L., M.D., New York. Price, semi-de luxe cloth, 60 cents, post paid. Library. Flexible leather, \$1.50, post paid. New York: Surgery Publishing Co., 92 William St.

This very practical monograph presents the author's impressions on the correct use of chloroform, ether, etc., and is a simple and coherent working method, and is of particular value to those general practitioners who are so situated that the services of a trained anesthetist cannot be secured. Among the subjects covered are: Induction of Anesthesia, Cardiac and Respiratory Collapse, When Shall the Patient be Declared Ready for Operation, Maintenance of the Surgical Plane of Anesthesia, Important Reflexes, Vomiting During Anesthesia, Obstructed Breathing, Use of the Breathing Tube, Indications for Stimulation, Influence of Morphine on Narcosis, General Course of Anesthesia, Awakening, Recession of Tongue After Narcosis, Post-Operative Distress, Minor Anesthesia with Ethyl Chloride, Intubation Anesthesia, etc., etc.

This extremely practical and useful little book is condensed to about fifty pages, but every page is replete with valuable data. Printed upon heavy India tint special Cheltenham paper with Cheltenham type, with marginal headings in contrasting colored ink.

Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S., Fellow of the Royal College of Surgeons; Lecturer on Anatomy at St. George's Hospital Medical School, London. Seventeenth edition. Thoroughly revised and re-edited, with additions by John Chalmers Da Costa, M.D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia; and Edward Anthony Spitzka, M.D., Professor of General Anatomy in the Jefferson Medical College, Philadelphia. Illustrated with 1,149 engravings. 1908. Philadelphia and New York: Lea & Febiger.

This new American edition of Gray's Anatomy is dedicated to William W. Keen, M.D., LL.D., Hon. F.R.C.S. (Eng. and Edin.), the distinguished Professor of Surgery in Jefferson Medical College, as an evidence of the admiration, the affection and the gratitude of his colleague and former assistant, the editor.

The early death of Henry Gray has enlisted in successive revisions of this work the services of many leading anatomists. Passing over the intervening editions, and bearing in mind the close relations between anatomy and surgery, it is searcely necessary to allude to the advantage of uniting in this new issue the knowledge of so eminent a surgeon as Dr. DaCosta, and of Dr. Spitzka, equally eminent as a specialist in anatomy. Professor Spitzka also possesses the ability of a skilful artist, and his delineations, therefore, convey his grasp of structure directly to the eye of the reader.

As simple directions are given for dissecting, this single volume will serve every requirement of the student throughout his course.

The new nomenclature and that still in common use have been introduced in a manner rendering the work universal in the prime essential of terminology. The table of contents is so arranged as to give a complete conspectes of anatomy, a feature of obvious value. The whole book is thoroughly organized in its headings and the sequence of subjects, so that the student receives his knowledge of the parts in their anatomical dependence

In this new edition, following so speedily its predecessor, there have been many alterations, eliminations, and some additions of important anatomical facts, as well as changes and improvements of equal extent in the illustrations. Histology and embryology have been treated by résumés, as heretofore. Free quotations have been made from numerous treatises, monographs and reports, proper credit to the authors being carefully given. Owing to its accuracy and simplicity, the Latin or International nomenclature is destined eventually to displace older methods. Such a desirable transition will, of necessity, be gradual, because in the minds of many the older names are not only fixed, but also cherished. Hence, in this edition the custom previously adopted is still pursued, and the names according to the new nomenclature have been introduced in parentheses following those still in current use in English-speaking countries.

The section on the Nerve System has been largely rewritten, with due regard to the advances recently made in the morphological and embryological aspects of the subject. The more important physiological and pathological data have been presented in their anatomical bearings in order to demonstrate with greater clearness the mutual relations of the structure and functions of the nerve system. Special effort has been bestowed on combining

the features visible to the naked eye with those seen only under high magnifying powers. By the knowledge of macroscopic and microscopic structures, the attentive student is enabled to resolve or reconstruct, in the three dimensions of space, and see with his mental eye the opaque interior resolved into intricate yet well-defined projecting and associating mechanisms. Such study is assisted by new illustrations depicting hidden structures in accordance with this principle. Much that could not be described in detail within the confines of a text-book has been summarized in such a way as to be of assistance even to advanced students.

Points of Practice in Maladies of the Heart. By James Sawyer, Knt., M.D. (Lond.), F.R.C.P., F.R.S. (Ed.), F.S.A.; Consulting Physician to the Queen's Hospital, lately a Professor of Medicine in the Queen's College. 1908. Birmingham: Cornish Brothers, Limited.

This brochure consists of the three Lumlein lectures delivered at the Royal College of Physicians of London at various times during the months of March and April, 1908. It is well to have these classical lectures bound and thus preserve a valuable contribution in connection with diseases of the heart in permanent form.

CLINICAL TREATISES ON THE SYMPTOMATOLOGY AND DIAGNOSIS OF DISORDERS OF RESPIRATION AND CIRCULATION. By Prof. Edmund VonNeusser, M.D., Professor of the Second Medical Clinic, Vienna; Associate Editor Nathnagel's Practice of Medicine. Authorized English translation. By Andrew MacFarlane, M.D., Professor of Medical Jurisprudence and Physical Diagnosis, Albany Medical College; Attending Physician to St. Peter's and Child's Hospital and Albany Hospital for Incurables. Part II. Bradycardia and Tachycardia, with Bibliography. 1908. New York E. B. Treat & Co.

The heart as the fons et origo of the circulation must be considered seriously in practically every disease from the point of view of prognosis as well as an index as to the cause of the malady. This little volume of one hundred and fifty pages on Bradycardia and Tachycardia ably presents all the factors involve? in the decrease and increase of the cardiac action. Dr. Andrew MacFarlane is to be congratulated as an able translator and editor

Physical Methods in the Treatment of Heart Disease. By Arthur G. Dampier-Bennett, M.R.C.S. (Eng.), L.R.C.P. (Lond.): author of the Re-education of Co-ordination by Movements, Thermal Methods of Treating Chronic Arthritis, etc., etc.; Visiting Physician to the Royal Marine Hotel and Medical Baths, Kingstown; late Physician and Medical Superintendent St. Anne's Hydropathic Establishment; Fellow of the British Balneological and Climatological Society, etc., etc. 1907. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co.

Much of the subject matter of the present work first appeared as a series of articles in the pages of the Practitioner. It is regrettably short, only of five chapters, but these, dealing with Rest and Massage, Electrical Applications, Diet, Drugs, and the Nauheim Bath, are well worth study and thoughtful consideration.

THE CAUSE AND PREVENTION OF BERI-BERI. By W. Leonard Bradden, M.B., B.S., F.R.C.S., State Surgeon Negri Sembilan, Federated Malay States. 1907. \$6.00. London and New York: Rebman, Limited.

This work consists, as the preface states, very largely of an official report to the Colonial Office in 1904, with excerpts from the literature on beri-beri to bring it up to date. The author has dealt with every phase of the subject in a thoroughly scientific manner, and this volume is the last word on the disease.

On Means for the Prolongation of Life. Third and enlarged edition of a lecture delivered before the Royal College of Physicians. on December 3rd, 1903, by Sir Hermann Weber, M.D., F.R.C.P.. Consulting Physician to the German Hospital, the National Hospital for Consumption, Ventnor, and the Mount Vernon Hospital for Consumption. 1908. London: Jno. Bale, Sons & Danielsson, Limited. Oxford House, S3-91 Great Titchfield St., Oxford St. W.

In 1904 we had the pleasure of reviewing and commenting upon this lecture of Sir Hermann Weber, which was first published in the *British Medical Journal*. The author then, as now, had nothing but the sanest advice to offer, and gave a careful review of the rules of living he had found most helpful and

practical. Sir Hermann, who has himself already passed the Psalmist's span, now publishes a third enlarged edition of this lecture, with a table of the digestibility of the common foods added—a work which we can heartily recommend as an epitome of modern personal hygiene.

ATLAS OF CLINICAL SURGERY, with special reference to Diagnosis and Treatment for Practitioners and Students. By Dr. Ph. Bockenheimer. English Adaptation by C. F. Marshall, M.D., F.R.C.S., with 150 colored figures. New York: Rebman Company, 1123 Broadway.

The three volumes before us of "Clinical Surgery" are undoubtedly the best system of clinical surgery extant. The name of Von Bergmann carries with it, beyond any dispute, the highest advance in surgery, and the illustrations, taken from models made by F. Kolbow of Berlin, are the nearest to nature of any illustrations it has been our pleasure to see. The process of reproduction is as nearly accurate as will be attained in many long years.

Each volume is in itself a grand series of clinics, the illustrations accurately depicting the condition, the letter press description being concise, yet full, the operative description brief and accurate.

The editor, Prof. Bockenheimer, assistant of the late Prof. Von Bergmann, has undertaken and accomplished in a very excellent manner a work that is to fill a large place in surgery. The study of surgery to-day must be largely clinical. In the smaller places, and with those not connected with large institutions, clinical material must necessarily be scarce; a system like this fills that want so admirably that one can really advance with the times by having in his possession a work such as this, while those connected with large hospitals have a most elaborate aid to their research.

This work first appeared in Germany a few years ago, and has been brought absolutely up to date by the translator, Dr. C. F. Marshall of London, who certainly deserves the approbation of the profession. It is impossible to criticize a work of this kind on account of its accuracy of detail, thoroughness in handling the subject, and the personnel of the editors and author—than whom no greater surgeon graced the profession.

There are in the three volumes 150 plates, dealing with surgery from its clinical standpoint, from the simplest to the most

complicated conditions. In many of the conditions depicted, differential diagnosis, which is a striking feature of this work, is beautifully illustrated. Figure 7, showing superficial carcinoma of the tongue, stands side by side with papilloma, as well as one of the more advanced conditions of carcinoma, all on the one plate for comparison. Each of these conditions could easily be mistaken for the other when seen separately, but when clinically compared they show striking differences. Then, again, the illustrations showing carcinoma of the breast: here are some most beautiful illustrations showing clinical differences in the many forms of breast cancer, showing the early stages of the disease, and carrying the illustrations through to the neglected or late ones.

There is another fine feature in the work—Treatment. This feature occupies a considerable space and is most succinct, not going into minutiae, but giving very accurate descriptions of the operative procedures necessary in each of the cases. If we referred to the different conditions as depicted it would only be to admire and appreciate, and of the 150 it would be impossible to refer to them all.

A word should be said in congratulation to the publishers. Rebman Company have undoubtedly excelled themselves in the typography and binding, but more especially in the illustrations. Illustrations make or mar a work of this character, and no single one can be pointed to as not being perfect in this present series.

Pathogenic Micro-organisms. Including Bacteria and Protozoa. A practical manual for students, physicians and health officers. By William Hallock Park, M.D., Professor of Bacteriology and Hygiene, University and Bellevue Hospital Medical College, and Director of the Research Laboratory of the Department of Health. New York City; assisted by Anna W. Williams, M.D., Assistant Director of the Research Laboratory; Pathologist to the New York Infirmary for Women and Children. Third edition, enlarged and thoroughly revised, with 176 engravings and 5 full-page plates. New York and Philadelphia: Lea & Febiger. 1908.

A volume of wide scope and great interest. Professor Park has divided the work into three parts: The Principles of Bacteriology, Bacteria Pathogenic to Man, and The Protozoa. While there has been added much that is of great importance to the profession generally since the second edition appeared

two years ago, such as the bacteriology of the normal intestines, the subject of the opsonic index, etc., the advance in the knowledge of bacteriology has been met by a thorough revision of the former editions.

Those who are interested in the agitation for a pure milk supply (and who is not?), will do well to read the chapter on the bacteriology of milk in its relation to disease. In it is considered the manner of contamination of milk, the effect of impure milk on infants and older children, as well as many tables of importance and much experimental work. Another subject of great interest locally and which is fully dealt with is that of rabies, the basis of diagnosis being the presence of the negri bodies.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world; edited by W. T. Longcope, M.D., Philadelphia. Volume III. Eighteenth series. Philadelphia and London: J. B. Lippincott Company. 1908.

This work is so well known to our readers that it is unecessary for us to point out its various merits. The articles have always been of the very highest type, by men who are the acknowledged leaders of their profession. Few other works come to our desk so fall of practical hints and useful information as International Clinics.

The contributions of Vol. III. are all exceedingly interesting. If we might be permitted to choose, we would especially mention the article on sciatica, by Sir Dyce Duckworth; modern treatment of fractures, by Eldred M. Corner; and "On the Trail of the Subconscious," by Joseph Jastrow. We are glad also to read an article on cleft palate and hare lip by Dr. F. N. G. Starr, of Toronto, in which he describes a new way of taking the tension off the stitches. The whole work contains the finest collection of monographs in the English language. We heartily recommend it to anyone who is not yet familiar with it.

A Manual of Diseases of the Nose and Throat. By Cornelius G. Coakley, M.D., Clinical Professor of Laryngology in the University and Bellevue Hospital Medical College, New York. New (4th) edition, 12mo., 604 pages, with 126 engravings and 7 colored plates. Cloth. \$2.75 net. Philadelphia and New York: Lea & Febiger. 1908.

In this new edition the author has, in a number of instances, revised the arrangement, and when necessary, in order to bring the investigation and treatment down to the present date, has added much new matter to the 3rd edition.

In other instances a complete change has been made. The subjects of "Spurs" and "Deviations" of the septum have been replaced by another, entitled, "Deformities of the Septum," which covers the whole field. Evidently believing that the submucous resection is applicable to all cases of septal deformity, in young as well as old, and that it has come to stay, the writer gives all other operations a wide berth, confining his description entirely to the submucous resection.

While devoting only seventeen lines to all the other methods of operation, by all the scientific rhinologists of the last half century, he devotes sixteen pages to a description, with illustrations, of this new and popular method, adding on the seventeenth page the words: "For the intense headache which begins in a few hours after the completion of the operation, I have found nothing better than cold applications to the forehead and nose, and the internal administration of one-half grain of codein."

When conservative surgery in scientific hands is believed to be the ideal of excellence, it is doubtful if the removal of the triangular cartilage and portions of the vomer will ever be the only method of correcting all cases of septal deformity. And whether it is right for a popular author to impress upon his many readers that it is the only method applicable to all cases is also open to question.

In the treatment of chronic disease of the frontal sinus, the writer also makes a marked change from that adopted in his last edition. The method he advocates now is a modification of Killian's. He still chisels away the entire anterior wall above the superciliary ridge after dissecting up the superficial tissues, and curettes away every particle of mucous membrane from the sinus and fronto-nasal duet; but instead of treating it as an open wound, as in his last issue, packing it from the

bottom and obliterating the fronto-nasal passage, he inserts a eigarette drain from the frontal sinus through the fronto-nasal passage and the nose, cutting it off at the vestibule; after which he closes the external wound with sutures and applies compresses to hold the skin and underlying tissues against the posterior wall of the sinus, until healing takes place.

Notwithstanding such methods, in themselves good, which he sometimes presses beyond the border-line, Coakley has given to the profession the fourth edition of an excellent work. As a laryngologist and teacher he possesses both practical and didactic know. Jge; and in a clear and succinct manner he takes his reader from the beginning right through to the end of his subject. The book is well up-to-date, and although he has eagerly accepted some of the new methods—one would scarcely dare to call them fads—he has wisely discarded others.

The work is excellently gotten up. The type is large and clear, the illustrations well defined, and the entire work a credit to the publishers.

PRICE-BROWN.

THE PRACTITIONER'S VISITING LIST, 1909. Philadelphia and New York: Lea & Febiger.

Although a new visiting-list reminds us of the passing of time, yet this little book always receives a warm welcome, because, for so many years, it has saved us so much labor. We have proved its accuracy, worth and usefulness, and can confidently assert that to use it once is to use it always.

# Selections.

### Arterio-Sclerosis—a New Theory and Treatment.

Arterio-sclerosis has been brought very much to the frontwithin the past few years, being a leading subject in every medical congress.

The fact is not surprising. The relations between normal senility and arterio-sclerosis are very close, rendering the etiology and treatment of this affection of general if not universal interest. On the one hand, the causes claimed as provoking the development of arterio-sclerosis are so numerous that it is difficult for one to hope to escape their influence, while, on the other hand, very few persons above 45 or 50 years of age can be said to be entirely free from sclerous lesions.

Dr. Scheffler, of St. Etienne, a rising physician, has made a special study of this disease, and has embodied the results of his researches in a small pamphlet which he was good enough to forward to me. His studies cover an extensive ground, and his conclusions seem convincing. For him arterio-sclerosis is the consequence of organic demineralization—that is to say, there exists a deficiency of silicates. Hence the treatment he advocates: Internal administration of silicate of soda, a syrupy liquid like silicate of potash, and easily mixed with water.

The description of the lesions of arterio-sclerosis is hardly necessary to give. They may be given in a few words: Fibrous thickening of the arterial walls in case of vessels of small or average calibre; calcareous infiltration (atheroma) of these same walls in case of the largest arteries (aorta).

These sclerous lesions can affect in general all the arterial system, or, on the contrary, only certain sections, either wholly or partially.

Thus, Levine published two cases of gastric arterio-sclerosis, demonstrated by post-mortem, in the absence of generalized lesions. Frequently the aorta alone is attacked, or the kidney, or the brain. But in reality sclerous lesions rarely attack one organ to the exclusion of all the others; yet one organ may suffer more than another, and, clinically speaking, it is lawful to distinguish, under the name of brain, heart, kidney, sclerosis cases where the predominating symptoms imply one or other of these organs.

As a result of these sclerous lesions, the calibre of the arteries is diminished, and their elasticity weakened. These two causes

compromise the irrigation of the tissues, not only from the fact that the nutritive substances are rendered insufficient, but also—and, it might also be said, above all—because the irrigation diminishing in intensity, the waste products of cellular life are evacuated less rapidly and tend to accumulate in the organism. This decrease of vitality shows itself in the individual, not only by a more rapid advance towards senility, but also by diminished resistance to the different factors of morbidity.

Another consequence of vascular lesions derived from arteriosclerosis is increased work for the heart, with fatigue of the organ, struggling to send the blood wave through vessels of diminished calibre and elasticity.

· The symptoms of arterio-sclerosis are known to all. The patients present generally a dry skin, and are particularly sensitive to cold. Alopecia is frequent, the temporal arteries tortuous, the arteries hard, and the tension is often exaggerated. Sometimes symptoms of angina pectoris are observed, with dyspnea on slight effort and dilatation of the aorta.

Auscultation of the heart reveals a bruit de galop, and the second sound sharp and strong. Insufficient irrigations of the lower limbs may provoke pains of an undefined character—tarsalgia, cramps, intermittent claudication, and even gangrene of the extremities.

The kidney is generally affected with interstitial nephritis, manifesting itself by eramps, sensation of numbed fingers, polyuria, with diminished toxicity of the urine, while albuminuria may be absent or insignificant.

Arterio-selerosis can also provoke hemorrhage, epistaxis, hemoptysis, hematemesis.

As regards the brain, the morbid symptoms may vary between slight inaptitude for work to cerebral hemorrhage.

Prof. Windscheid, of Leipzic, gives three signs of arteriosclerosis, which, when associated, possess great value as a means of diagnosis: headache, vertigo, loss of memory. Another symptom remarked by Dr. Scheffler, and which he considers of great importance, is an extraordinary intolerance for alcoho. In the part of the patients.

Such is a summary of the principal morbid troubles due to arterio-selerosis.

The diagnosis may be either very easy or very difficult, according to the case. But in the presence of a patient over 40 years age, the clinician should always bear in mind the possibility the existence of sclerous lesions, and examine carefully the