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The Canadian Practitioner and Review.

VOL. XXXI. TORONTO, SEPTEMBER, 1906.

No. 9

British Medical Association.

74th Annual Meeting, held in Toronto, August 21st to 25th 1906

ADDRESS IN MEDICINE.

BY SIR JAMES BARR, M.D., L.R.C.P., F.R.S.E.

Senior Physician to the Liverpool Royal Infirmary; Lecturer on Clinical Medicine,
Liverpool University.

THE CIRCULATION VIEWED FROM THE PERIPHERY.

There are numerous treatises on diseases of the heart and aorta, but until recent years a careful study of the peripheral circulation has been largely left to physiologists and pathologists.

I have previously asserted that diseases of the heart most frequently arise from causes acting on the periphery, and hence there is here no room for specialism. The man who only studies the circulation with the aid of a stethoscope is a positive danger to society.

The capillaries through which the interchange of nutritive pabulum and gases takes place between the blood and tissues, play a most important rôle in the animal economy. Yet they have received very inadequate attention from clinicians. They constitute a vast filter bed for conveying nutritive material and oxygen to the tissues and for removing waste products therefrom. These little vessels are of extreme tenuity and delicacy, consisting of a single layer of endothelium, yet they are much stronger than most people imagine, and are capable of standing considerable internal pressure.

The capillary bed is a vast territory which pervades every tissue and organ of the body, and so numerous are these little vessels that it would be difficult to stick the point of a needle in any vascular area without wounding one or more, but in neurotic individuals you may wound many such vessels without drawing blood. In very plethoric individuals and in cases of polycythaemia

mia, the capillaries of the body are fairly replete, but in ordinary mortals, especially in those of neurotic temperament, perhaps not a third of the capillaries are full at any one moment. Apply a sinapism to a very pallid skin, and you may wonder where all the turgid capillaries have sprung from. From the fact that under normal circumstances a sufficient quantity of blood cannot get through the arterioles to keep the enormous capillary bed full, the lateral pressure and the velocity in the capillaries are ever-varying quantities. The higher the potential in the arteries the greater the velocity in the capillaries, but as this arterial potential is induced by obstruction to the outflow, the velocity in the arteries will be diminished. As Leonard Hill appropriately says: "The circulation of the blood follows certain definite laws; unfortunately, the conditions of the flow are so complicated that these laws remain for the most part undetermined. A viscous fluid driven by an intermittent pump which circulates through a system of branching elastic tubes of varying capacity; a system of tubes into and out of which passage of fluid takes place either by osmosis, filtration, or secretion; a fluid which varies in viscosity, a pump which varies in force, and tubes which have an ever-changing diameter and co-efficient of elasticity."

In a paper on tubal nephritis published in 1883, and in one on the pathology and treatment of dropsy in 1886 I dealt with the capillary circulation. I have long been in the habit of estimating the velocity by compressing the blood out of the capillaries in a given area and then watching the quickness or velocity of the return. This has served, and still serves, my purpose, but when I wish to record my observations I use a glass rod 10 millimetres in diameter. With the flat end of this rod I compress the capillaries, and then with a stop watch recording fifths of a second I time the period of the return of the blood. If you divide the radius of this rod (5 millimetres) by the time, you get the velocity per second. For these observations you must select some spot where there is a network of capillaries which you can completely empty, such as those in the back of the hand or finger, and you must also choose a spot where the return current flows from all parts of the circumference.

The study of the lateral pressure and velocity of the blood in the capillaries is an exceedingly interesting one. A combination of these two forces represents the energy of the blood in the capillaries, and no doubt this energy is derived from the heart, and stands in direct relationship to the force of the cardiac contraction; the greater the force of the cardiac output the greater will be the energy in the capillaries, but the component elements of this energy—lateral pressure and velocity—need not bear any

direct relationship to those respective elements in the arteries. These two conditions (velocity and pressure) might be said to stand, within certain limits, in an inverse ratio to one another, the more rapid the flow, the less the lateral pressure, and vice versa. The lateral pressure depends on the statical condition of the blood, and just in proportion as you introduce movement you convert the force of pressure into that of velocity.

The capillary pressure in the foot even when immobilized is often less than that in the hand, and much less than that in a frog-blossomed nose. This is entirely due to the wonderful mechanism of the vasomotor system. Some people are very liable to cold feet in bed, and such appendages to a lady seem to have led up to a divorce in the United States of America. In such cases the part may be fairly comfortable before going to bed, but once the horizontal posture is assumed the arterial pressure and capillary velocity fall, there is not a sufficient amount of fuel carried to the extremities to keep the large cooling surface warm. Here the defect is in the initial energy, and besides improving the general arterial pressure it would be advantageous to keep the feet much lower than the head and shoulders. Possibly if the lady had been under medical treatment she might have conserved her own comfort, preserved the affection of her husband (though she might not have thought the affection of the brute worth preserving), and saved the notoriety of the divorce court.

The velocity of the blood in the capillaries is, if possible, even more interesting than the pressure. It varies enormously in different individuals under different conditions. As I have before said, the range of my observations has been from less than 0.5 to 25 mm. per second.

When the velocity in the capillaries is reduced to one millimetre or less per second, the blood becomes surcharged with carbonic acid, and the skin or organ supplied becomes of a dusky hue. This appearance immediately disappears if you increase the capillary velocity; for example, when the hand is blue and passively congested from cold, or the so-called local asphyxia, if you let it hang down you increase the velocity, and you quickly see bright red spots intermingled with surrounding lividity, and soon the color of the whole hand improves. In the cold livid dependent hand the color of the fingers is better than that of the back of the hand. When you get cardiac failure, with or without any obstructive lung disease, you frequently see the upper part of the body and the hands quite dusky, while the legs and feet, which are at a lower level, may be pale. In one marked case of cardiac failure where the upper part of the body was livid, I saw one foot and part of the leg in a state of local syncope and as

pale as marble. These patients do not require a cylinder of oxygen, with which they are frequently plied, but the judicious application of a little common sense, such as the intravenous injection of small doses of adrenalin or some cardiac tonic. In cases of Raynaud's disease the local syncope is ascribed to vasomotor spasm, but really the spasm, if it exist, is a very mild affair. In these cases the arterioles shut down because there is not sufficient blood pressure to keep them open. The arterial pressure is always low, and the blood is deficient in lime salts and viscosity. In the case of local asphyxia the arterioles are not closed, but the arterial potential is low, the velocity in the capillaries is defective, and the *vis viva* is not sufficient to drive on the blood stagnating in the veins. In cases of erythromelalgia the reverse happens; the velocity and pressure are both increased in the large engorged capillaries.

In many cases of pneumonia with low blood pressure, the vasomotor taps in the splanchnic area are all open, and the aorta is drained before it terminates in the iliac arteries; the bulk of the blood is retained in the chest and abdomen, and the quantity supplied to the lower limbs is diminished. Moreover, the extremities are often colder than the body, and the arteries contracted. The lower level of the limbs increases the velocity in the capillaries and veins, and consequently the capillaries of the foot and leg are often blanched and the veins comparatively empty when the upper part of the body appears congested and purple.

VISCOSITY OF THE BLOOD.

The viscosity varies greatly, and is no doubt the great cause of resistance in the capillaries. Normally it is about five times that of distilled water. In many diseases the viscosity is nine or ten times that of distilled water. The coefficient of viscosity in the tarry blood of Asiatic cholera is often so great that it will not pass through the capillaries. It has long been a disputed point as to whether the resistance to the arterial flow, and consequently to the heart, is situated in the capillaries or arterioles. Sir. W. H. Broadbent, I believe, even now throws the weight of his deservedly great name in favor of the resistance being in the capillaries; and in cases of vasomotor paralysis no doubt such is the case, but in ordinary circumstances I agree with the majority that there is an earlier barrier to the outflow from the heart in the arterioles and small arteries which are governed by vasomotor nerves.

It is extremely fortunate that there is this first line of defence created by the action of the vasomotor nerves in the small arteries

and arterioles, because if this were wanting, as at present constituted we should either have to go about on all-fours or constantly run the risk of fatal syncope. Moreover, the blood would gravitate into the most dependent parts, the cooling surface would be enormous, the capillary velocity would be diminished, the blood would become surcharged with CO₂, and we would become cold-blooded animals. When the vasomotor nerves of a rabbit are paralyzed it appears all right until you suspend it by the ears, and then it immediately dies. The arteriolar resistance saves us from such risks.

In the second line of resistance there is a greater transformation of energy. If there be very little resistance in the veins a large proportion of the kinetic energy is carried right through to them, but as far as the resistance to the outflow has to be overcome the velocity is converted into pressure. There is considerable waste or rather transformation of energy in overcoming resistance and in producing filtration pressure. In these small tubes there is an enormous amount of surface friction. The resistance is directly as the length of the tube and inversely as the square of the sectional area; directly as the square of the velocity and inversely as the fourth power of the diameter. It also varies directly as the viscosity. The extravascular pressure is about one-fourth of the capillary pressure from which it is derived, and is an important force in carrying on the lymph circulation.

THE INTERCHANGE OF MATERIAL THROUGH THE CAPILLARY WALLS.

There are some physiologists who would raise the endothelial cells of the capillary walls to the high level of secreting structures, not that they have any evidence, either from analogy or otherwise, in support of such a contention, but simply because they think that the physical properties of diffusion, osmosis and filtration cannot account for the phenomena. They hold that the capillary pressure is low, and is more than counterbalanced by the endosmotic equivalent of the albumen and salts in the blood. When they recognize the enormous variation which takes place in the pressure and velocity of the blood in the capillaries, they will have less difficulty in admitting the problem of filtration as applicable to the capillary circulation. Moreover, the capillary walls do not form a semi-permeable membrane, but are just as easily permeated, *caeteris paribus*, in one direction as in the other. In a network of capillaries the pressure must necessarily be higher in the efferent or distributing vessels connected with arterioles than it is in the afferent or collecting tubules which unite to form the venules. You can thus have filtration and absorption going on side by side, just as in a hole in the wall

divided by a midriff you can have strong currents of air flowing side by side in opposite directions.

The interchange of gases which are in solution readily takes place by the process of diffusion: and osmosis must play a very important part in transudation and absorption according as the osmotic equivalent is greater on one side than the other of the capillary membrane. In 1886, when dealing with the pathology of dropsy, I said: "Fluids pass very readily through organic membranes, such as the walls of the capillaries, by a process of osmosis, but albumens do not thus readily transude. Unlike the capillaries of the lungs and kidneys, the systematic capillaries allow albumen to pass through their walls, so that it is found in all the intercellular fluids. Now, if it does not pass through by osmosis, we must suppose it to be filtered through under varying amounts of pressure. In filtering under pressure, as a rule, the greater the pressure the greater the amount of the filtrate, but the composition of the latter differs very materially from the nature of the compound fluid submitted to the pressure, as the different constituents pass through with varying degrees of ease. the water passing through much more readily than the albumen. Hence, although the total amount of albumen passed through may be increased according to the quantity of the filtrate, its percentage is diminished. Hence, the greater and more rapid the production of dropsy—if there be no increase in absorption—the less the relative amount of albumen." Runeberg in 1882 expressed similar views when he maintained that the concentration of a colloid filtrate is greater at lower than at higher pressures.—Abstracted from *British Medical Journal*.

ADDRESS IN SURGERY.

BY SIR VICTOR HORSLEY, F.R.C.S., F.R.S.

Surgeon to University College Hospital, and to the National Hospital for the Paralyzed and Epileptic, Queen Square.

ON THE TECHNIQUE OF OPERATIONS ON THE CENTRAL NERVOUS SYSTEM.

In considering in what way I could best fulfil the extremely honorable and at the same time responsible duty of delivering the Address in Surgery on the occasion of such a meeting as this, it occurred to me that exactly twenty years had elapsed since I showed at the annual meeting of the Association at Brighton the

first three patients upon whom I had operated at Queen Square Hospital for intracranial disease.

I intend to-night to analyse my cases at the National Hospital, Queen Square, and facts which we have gained therefrom since 1886, while from my experience at University College Hospital and in private practice, I shall quote only such cases as are unique, or particularly demonstrate certain points.

I must first briefly allude to the responsibility of the surgeon in the treatment of diseases of the central nervous system. As in all special branches of medicine and surgery which are in a process of evolution, it is not easy to assign credit or blame when the course of treatment pursued is respectively successful or unsuccessful; but so long as our powers of diagnosis remain as imperfect as they are, so long will the vulgar error of regarding surgical treatment as a dernier resort be committed. This question, namely: When should medicinal treatment be given up and operative treatment substituted? has been raised again and again and hotly discussed in connection with many diseases, notably appendicitis.

Dr. Allan Starr, in his well-known work on "Brain Surgery," formulated the conclusion that the surgeon should be invited to consultation in the case after about three months' medical treatment had been unsuccessful. Although such a course is in general the practice at the Queen Square Hospital, this view of the situation unfortunately has not yet been discussed in the profession. Even in the present year I have been asked to operate on a patient with a lateral tumor of the cerebellum who had been known to have optic neuritis for nine years, and last year I did operate on such a patient who had been known to have optic neuritis for thirteen years.

PALLIATIVE SURGICAL PROCEDURES.

It is a prominent characteristic of intracranial disease that (1) it is liable to produce optic neuritis, which customarily ends in total blindness; (2) it may concomitantly cause severe headache and vomiting, all of which symptoms are dependent upon pressure, and can be completely palliated or wholly removed by making a sufficiently free opening in the skull and dura mater.

The first of these, namely, optic neuritis, is a condition which, owing to its causing blindness, is of such vital importance to the interest of the patient, and so to the community, that it merits full attention. In 1886 its pathological causation was a matter of acute controversy, but we learnt by a very few years of operative surgical experience that, whatever other factors might be concomitant, the most important one in the production of optic

neuritis was increase of the intracranial tension, and thus it happened that our earliest experience was the strikingly rapid subsidence of the optic neuritis when the skull and dura were opened. Therefore, it is now possible to dogmatize on this question, and to say that in no case of optic neuritis (not of course of toxaemic or anaemic origin) should the process be allowed to continue after it has once been diagnosed, and that if blindness results therefrom the responsibility is very heavy on any one who fails to advise such a simple proceeding as opening the dura mater. The gravity of this responsibility does not seem to be generally recognized, and it is owing to this, as well as to the backward state of neurological diagnosis, that melancholy cases such as the following occur. A. B., lady, married, developed symptoms of cerebral tumor with acute optic neuritis, and was told by a neurologist that nothing could be done surgically. Subsequently, and after some treatment with the iodides, the neuritis subsided into complete atrophy and blindness, while the cerebral lesion gradually retrogressed. When the patient came under my observation in the spring of this year, her physical condition was apparently perfectly normal except the permanent loss of sight. This calamity would have been wholly avoided by operating to relieve the optic neuritis, even if nothing farther had been attempted to deal with the lesion itself.

As regards the procedure to be adopted, my own experience is that although in rare instances the neuritis may begin to subside after even the first stage of only opening the skull, it is, as a rule, necessary to make a free opening in the dura mater to effect this purpose. One reservation must be made, that in cases where the tumor directly involves the optic tract, the specially delicate anatomical structure of the optic tract may negative the attaining of this otherwise invariable result.

In predicting what will be the condition of vision after surgical treatment of the optic neuritis, everything depends upon the care with which the ophthalmoscopic appearances of the disc are interpreted. Yellowish-white stippling, patches of exudation, or opal white atrophic changes, especially when associated with macular figures, all indicate that the secondary changes in the disc are likely to be permanent, and, therefore, in proportion to their development so the vision will be impaired, whereas when the loss of vision has been dependent simply on the swelling of the disc, then not only is the sight saved, but largely improved.

CURATIVE SURGICAL PROCEDURES.

If the operation is undertaken for the purpose of effecting a cure we have to consider (1) what is the nature of the disease, (2) what loss or aberration of nerve function it causes, (3)

whether if the lesion be wholly extirpated there will be a recovery from the disorder of function, and (±) whether any loss which may have been present before operation will be made permanent by the necessary extirpation of particular regions of the brain.

On points like the last it is evident that we cannot give a satisfactory opinion until we know precisely first what parts of the central nervous system alone contain the representation of movements or the record of sensation, and consequently of what parts does destruction entail permanent loss of function. In other words, we require to learn from the cerebral physiologist under what circumstances and to what extent can we get *compensation* of function when various parts of the cerebrum and cerebellum are destroyed.

1. *As Regards the Cerebrum.*—Apparently from the clinical records we can generalize thus far, that special motor functions cannot be restored if the whole of their cortical representation be removed. The same thing is probably also true of the special senses, and certainly is true of the hemianopic representation of sight. Succinctly stated, this amounts to the generalization that compensation is wholly impossible after the destruction of the middle level centres. The higher sensory representations and *a fortiori* the intellectual functions are, on the contrary, not permanently abrogated by the destruction of any one part of the cerebral hemisphere. The net conclusion, however, must be that as little injury as possible should be done, and no more removed than is absolutely necessary, it being always understood that this does not apply to the skull, but only to the nerve structures. The opening in the skull must always be free to allow of a proper survey of the brain.

2. *As Regards the Cerebellum.*—This question of compensatory power is of notable scientific interest when studied in the cerebrum, which is so clearly an assemblage of different nerve centres (in fact we might almost say organs), but it is no less interesting in the study of a homogeneous structure like the cerebellum, and has assumed a particular importance in the present subject because of Professor Frazier's proposal to extirpate the lateral lobe of the cerebellum in preference to pushing it side by displacement for the purpose of reaching deep-seated tumors. My own experience is against such extirpations for convenience. In fact, I regard them as an unnecessary mutilation, though quite admitting that in the process of removing a large tumor in that region the cerebellum is considerably bruised when so pushed aside. I ought to add that although I have removed a considerable number of lateral recess cerebellar growths, I have

never found it necessary to do more than compress the cerebellum aside.

As to whether there is loss of function from such displacement involving bruising of the cerebellum, I have followed up the longest surviving case that I could find in the Queen Square series, namely, one of cerebellar tumor and cyst combined, which I operated on eleven years ago, when the patient was a boy of 14. He is now a healthy young man of 25. In this case the tumor was a large one, situated in the right lateral lobe of the cerebellum, which was consequently markedly compressed, and probably the dentate nucleus of that side was also affected. The only indication of loss of physiological function that he now presents is a slight unsteadiness of the hand when he is particularly fatigued, as for instance after a long bicycle ride.

CONSIDERATION OF THE DETAILS OF OPERATIVE PROCEDURE.

Perhaps the most convenient way of continuing this review of the technique and procedure of encephalic operations will be by taking the essential steps of such operations seriatim, and virtually it will be found that the fundamental purpose of every detail is the prevention of shock and the maintenance of the physiological integrity of the nervous system.

(a) *Previous Preparation.*

The general preparation of the patient by dieting, enemata, etc., is the same as for all operations. In a few instances I have found calcium chloride of probable service in cases where oozing from the bone or superficial tissues was to be expected, as in cases of penetrating endotheliomata of the skull.

The head and cavities in relation to it having been thoroughly disinfected for two or more days with sublimate and carbolic acid, the patient is placed on the table in such a position that, while the head is elevated to diminish the pressure in the venous sinuses, the shoulders are also slightly raised, so that the glottic respiration is not interfered with. If the operation is to be on the cerebellum, the patient is placed on his side, with the uppermost arm drawn downwards. By these simple means complete access can be gained for any operation on the encephalon without subjecting the patient to constraint which affects both the circulation and the respiration. This question of posture of the head is no mere matter of convenience to the operator, it is an extremely serious one to the patient for the satisfactory performance of the operation, and is only to be secured by having a suitable head-rest, such as the fork rest of Professor Frazier or the one I use.

(b) Anaesthesia.

Sir Victor generally uses chloroform in regulated doses, using for this purpose the "Harcourt Regulator." He commences with .5 per cent. of chloroform vapor in the air breathed by the patient, and rises in one or two minutes to 2 per cent.

(c) Maintenance of the Body Temperature.

One of the depressant physiological effects of the general anaesthetic now requires consideration, and that is the high degree of power to lower the temperature of the body, and therewith emphasize the shock of the operation. For this reason I think that all operating rooms should be at a temperature of not less than 75° F., and that the operating table should be provided with a suitable hot water bed.

The wound should be constantly irrigated, usually with a solution of sublimate of 1 in 10,000 strength, or with saline. These lotions are put into the irrigator at a temperature of 115°, and the flow is regulated at will by an assistant.

The use of the hot irrigation fluid, however, is not only to prevent cooling of the nerve centres; it also has another purpose—namely, the arrest of capillary and arterial haemorrhage. I therefore take up the question now of haemorrhage; and it is, of course, only necessary to speak on this occasion of the haemorrhage from the central nervous system itself—unavoidable haemorrhage met with in dealing with the nerve tissues.

(d) Haemorrhage.

The first general principle is the recognition of the fact that as few vessels as possible should be obstructed. Where it is necessary to remove large portions of the brain, the branches of vessels to be divided should be severed as far as possible from the trunk.

Arteries.—From time to time it has been proposed to tie the main arteries—for example, the carotid, with the view of producing a large control of the blood flow from the cerebral arteries. But a thorough consideration of the cases in which this has had to be done by reason of operative necessities has convinced me that it is a measure to be avoided as far as it possibly can be. On the whole, I cannot suggest anything better than the original plan of tying all the arteries around the lesion before extirpating it.

Arterioles and Capillaries.—It is remarkably easy to arrest capillary oozing and arteriole oozing from the brain by the simple means of hot irrigation.

Veins.—All bleeding from the veins and sinuses in bone can be immediately and absolutely certainly arrested by plugging with wax if the periosteum round the hole is completely removed.

CONTROL OF VENOUS AND CAPILLARY OOOZING BY THE USE OF OXYGEN.

Venous bleeding as just stated, commonly occurs in association with capillary oozing, and is often very troublesome in spinal as well as in intracranial operations, especially those at the base of the skull.

This can be rapidly controlled by a single manœuvre, namely the inhalation of oxygen.

METHOD OF OPENING THE SKULL.

I cannot spend time on the various mechanical devices for opening the skull, but as much of the shock depends on the way in which this is effected, I must allude to the principles which I believe govern the opening of the cranio-neural tube at any point. Of these the first is that as far as possible the bone should be divided with as little vertically applied force as possible, and removed with the least possible pressure on the brain and dura beneath. After a long experience of saws, circular or straight, and trephines driven by electromotors. I find that the foregoing principle can be most quickly and readily fulfilled by first removing a trephine disc, then marking with a large saw the area to be removed, and finally cutting away the bone with large bone forceps, all traction being directed outwards. The ill effects of vertical pressure or force are particularly seen when the opening of the skull has been done osteoplastically with the use of the mallet and chisel, and as in very many cases it is not advisable to preserve the bony wall of the skull the chisel need be but rarely used.

Sir Victor then discussed the displacement of the brain which must be resorted to to reach tumors at the base, the procedures necessary for the exploration of the ventricles, and finally certain procedures in the treatment of malignant disease of the encephalon.—Abstracted from *Brit. Med. Jour.*

ADDRESS IN OBSTETRICS.

By W. S. A. GRIFFITH, M.D., F.R.C.P., F.R.C.S.

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THE TEACHING OF OBSTETRICS.

Such an address as I am requested to give on this occasion should, if possible, deal with some point of general importance and interest rather than of personal investigation or experience, and I can imagine none at the present time so important to the present and future members of the Association as the efforts which are being made to improve the teaching and training of our medical students in practical obstetrics. The faults of our methods of teaching are obvious to every thoughtful person. The difficulty in adequately removing the deficiencies is undoubtedly very great.

May we first consider some of the most obvious imperfections? These are for the most part due to the difficulty of providing practical clinical teaching. There is no large maternity hospital in London capable of accommodating the students of the various medical schools, for the four lying-in hospitals are primarily charities for the relief of poor women and training schools for monthly nurses and midwives.

Queen Charlotte's is the only lying-in hospital which admits medical students or qualified practitioners to its practice. The students, however, who take the month's course obtain clinical teaching and experience of a kind not to be easily obtained elsewhere, but unless the hospital is prepared to give up its principal work—the training of midwives and monthly nurses—in favor of the medical students, its 70 beds, accommodating 1,600 in-patients in the year, can only provide the necessary experience for a small number of the students of London. At the present time the practice is attended chiefly by qualified men, who, having found out their lack of experience, are glad to make use of the opportunities for instruction to be obtained there.

All the medical schools and lying-in hospitals have an extern maternity department, and in this department the students, under more or less organized supervision, attend poor women in their own homes. Even in the best organized of these maternities the supervision and instruction of the students are very inadequate, for the resident medical officer in charge of them is without that constant guidance and close personal contact with his chief which fall to his lot when working in the wards of a hospital. It is impossible for it to be otherwise, and it

speaks well for the general standard of practical common sense that so few calamities occur.

Another factor which has delayed the provision of adequate teaching in obstetrics, not only in England, but probably in other countries, is the old ingrained idea that the process of labor is a simple function of Nature, requiring for the most part a competent nurse only, and that the practitioners of obstetrics, although recognized in theory as of equal standing, are to be looked down upon in comparison with their colleagues in the other great branches of medicine and surgery. As the result of this, both in teaching and in examinations, the study of obstetrics has been relegated to a position totally unworthy of its immense importance to the practitioner and to the national welfare.

As shown in the report of a Committee of the General Medical Council, just published, it is still common in many places for students to be permitted or even encouraged to attend their maternity cases before they have had any adequate instruction in those general principles of medicine and surgery upon which the whole practice of obstetrics is based.

Another defect in the teaching is due to the fact that the lecturers frequently have had little experience in the practice of obstetrics. It is considered essential for the lecturer on medicine, surgery, or, indeed, any other special subject, to be a man of wide clinical experience, and to be in charge of wards devoted to the care of patients suffering from those particular diseases upon which it is his duty to lecture.

In obstetrics it is otherwise; the lecturer presides over no obstetric clinic and has often had but little experience. He is an obstetrician in name, not in practice. He probably does not attend twenty cases in a year. His obstetric practice is limited to the few special cases to which he may be called in consultation, and his teaching is necessarily of the book, not controlled by that wide personal experience (only to be acquired by the constant observation of large numbers of cases such as falls to the surgeon, the physician, or to himself as a gynaeecologist in the course of their daily work. They, however, aim at and attain a high standard of theoretical teaching, and all credit is due to the men who under these very imperfect conditions have done such admirable work as teachers and investigators.

In many of the provincial schools the lecturer is a successful general practitioner, to whom the Fates have given a large obstetric experience, but whose scientific training for this work and whose experience as a teacher may have been quite inadequate.

It is essential to have a scheme which shall place the teaching of obstetrics upon the same basis as the teaching of medicine and surgery.

It is in the first place essential that the clinical teaching be given in hospitals provided for the purpose, where a sufficient and continuous series of patients can be admitted, and they should have a large extern department where the advanced student can attend patients at their own homes. Lying-in wards in a general hospital would be equally valuable if there were a sufficiently large number of beds to ensure a regular series of patients in sufficient numbers. A small ward with a few beds is quite inadequate for routine teaching, although of great value for the admission of special cases. A large number of cases is less of a necessity than a continuous series, and I am convinced that it is of the greatest advantage to teachers and pupils that medical students be taught their duties at the same time and place as monthly nurses and midwives. If taught separately, the average student learns little of the many things every nurse knows well, and the nurse of a few months' training thinks she knows a great deal more than the doctor, and does not realize the wide gulf that separates her knowledge and practice from that of the properly-trained doctor.

Owing to the great difficulty that there is in providing the necessary funds for the maintenance and development of the existing hospitals, supported as they are by the voluntary contributions of a comparatively small proportion of the community, it seems hardly possible to expect that adequate accommodation can be provided in this manner in the near future, whether by the extension of the lying-in hospitals or provision of suitable wards in the general hospitals or by the foundation of new hospitals. All these are urgently needed, and will require the expenditure of large sums of money.

The practice of obstetrics consists of the practical application of the ordinary principles of surgery and medicine to special organs and to special conditions, and yet as stated in the report of the Midwifery Training Committee of the General Medical Council, already alluded to, in twenty-three out of thirty-seven medical schools students are allowed to attend midwifery practice before they have received even an elementary training in the principles of medicine and surgery. All obstetric physicians who have to teach know well that it is impossible to instruct such students with any enthusiasm, however willing the students may be to learn.

The action of the General Medical Council in appointing this Committee is a very important step in the right direction. The

recommendations are in the main excellent, and are now being considered by the various teaching bodies. They are—that every student be required to have conducted no less than 20 cases of labor, subject to the following conditions:

- A. Before the student is allowed to conduct the above-mentioned 20 cases of labor he should be required to have held the office of clinical medical clerk and of surgical dresser; to have attended a course of lectures in medicine, surgery, and midwifery; to have during one month given undivided attendance upon the indoor practice of a lying-in hospital or the lying-in wards of a general hospital; and to have therein attended cases of labor under the direct supervision of a medical officer of the hospital. He should further be required to produce a certificate from the authorities of the hospital showing that he is competent to undertake the conduct of ordinary cases.
- B. No certificate that the student has conducted the above-mentioned 20 cases of labor should be accepted unless it is given by a member of the staff of a lying-in hospital or of the maternity charity of a general hospital.

These recommendations, when they can be rendered practicable and can be enforced, will meet some of the most important deficiencies suggested in this address.

The changes indicated in Paragraph B, may be thought to inflict some hardship upon individual students, for at the present time the requisite certificate of attendance upon twenty cases of labor may be given by any registered practitioner. But it must be remembered that under the existing regulations the certificate affords no evidence that the student has received any instruction whatever, and there is reason to believe that such indeed is *sometimes* the case.

The regulation at present in existence which demands that the student shall attend courses of systematic lectures is also faulty, since it involves unnecessary labor to the lecturer and makes too great a call on the time and attendance of the student. This remark, indeed, applies to almost all systematic lectures as delivered at the present time, and many of us think that the time has come when the arrangements for such lectures need thorough revision. The great extent and variety of the subjects, on the one hand, and the excellence of so many of the text-books on the other, make it desirable that the greater branches of medicine and surgery be taught in sections rather than in a continuous course of sixty or eighty lectures.

In obstetrics the usual plan is to give a course of lectures extending over three months, and delivered on four or five days in the week during the summer session; this course the student is expected to attend, but it is often quite impracticable to arrange a time for the lectures which shall permit anything like the whole number of the students to attend without interfering with their other duties, and unless (as is the case in the larger schools) a tutor is appointed to supplement these lectures by classes held at short intervals, a student may get little or none of the higher instruction which it is essential for him to receive. The lecturer on his part has year after year to spend a considerable portion of the time given to his lectures in teaching the anatomy and physiology of the female generative organs, both in the normal and gravid conditions, before he can begin teaching obstetrics proper, namely, the anatomy and physiology of labor, the management of pregnancy and labor, and the science and practice of the various complications that may arise.

It is a curious custom, but apparently a common one, from the lecturers on anatomy and physiology to omit from their systematic courses the female generative organs; hence the student learns but little of female pelvic anatomy and of such a highly-important subject as the physiology of menstruation until he attends lectures on obstetrics and gynaeceology.

Before attending his cases and acquiring some degree of practical acquaintance with the process of labor; the student is not in a position to appreciate or even to understand much of what he hears in a course of systematic lectures. It would be better if the instruction he received before his attendance upon labors were limited to the management of normal pregnancy, labor, and the puerperium together with such complications as are common. Instruction of this kind could well be given by the demonstrator, and would clear the ground for the lecturer on obstetrics, leaving him free to devote more time to the graver complications and more advanced work. The student also at this later stage of his career would be in an infinitely better position to appreciate the value of this advanced teaching.

Another method of instruction, and one likely to be keenly appreciated by advanced students, is the delivery of clinical lectures upon cases recently in the wards. Hitherto, owing to the absence of lying-in wards, such lectures have seldom been delivered.

Amongst the many able and learned obstetricians in London who have from time to time endeavored to raise the standard of teaching, there is probably no one to whom we owe so much as to the late Dr. Matthews Duncan. He came to London to

fill the vacant post of obstetric physician at St. Bartholomew's Hospital in October, 1877, and from the first devoted a large portion of his time and his great experience, and gradually his affection also, to his wards and his students.

His influence at the hospital may be summed up in the statement that by his teaching and example he transformed the teaching of obstetrics and gynaecology from an almost insignificant position to one of the greatest importance. This change was soon felt, not only by his colleagues on the staff of St. Bartholomew's, but by the students and junior officers who flocked to his lectures and wards to learn from his example that the practice of midwifery and gynaecology could be as noble and as full of dignity as that of the highest standards of surgery and medicine. This transformation was due not only to his learning and greatness as a teacher and to his success as a leading consultant—both of which were sufficiently recognized far beyond the limits of St. Bartholomew's and even of London itself—but also to the greatness of character which made it impossible for any one to be brought in contact with him, either in hospital or palace, without feeling that the branch of the profession which he practised was as noble and dignified as that practised by the greatest physicians and surgeons. In this respect, as in the high standard of his teaching, his example diffused itself in every direction, and it is no injustice to other great teachers of his time to say that it raised the whole standard of teaching obstetrics and gynaecology throughout London.—Abstracted from *Brit. Med. Jour.*

INTRODUCTORY ADDRESSES BY PRESIDENTS OF SECTIONS.

Section of Anatomy.

ARTHUR ROBINSON, M.D., PRESIDENT.

PRESIDENT'S INTRODUCTORY REMARKS.

THE TEACHING OF ANATOMY IN UNIVERSITIES AND MEDICAL SCHOOLS.

Human anatomy appears to have been studied at first by men of an inquisitive turn of mind, who desired to know as much as possible of themselves and their fellows. They were men of the educated class of their time, and it is not improbable that they may have hoped that a knowledge of the structure and arrangements of the various parts of the body would be of service in an attempt to meet and avoid those infirmities and diseases which they knew as the precursors and possible causes of death, just as similar knowledge enabled them to preserve and improve other mechanisms with which they were acquainted. Whether this was so or not, the knowledge gradually acquired was utilized by those who undertook the treatment of injuries and diseases of the human frame, and gradually the study of the details of human anatomy passed at first into the hands of the priesthood, who provided for the bodies as well as the souls of their flocks, and afterwards into the hands of the members of the medical profession. The treatment of the body having fallen into the hands of a special group of men, it naturally followed that they must teach the details of their profession, and, consequently, human anatomy has been taught for the most part in medical schools, and it has been taught almost entirely by medical men.

Under these circumstances, there has been danger that the science might be shorn of its wider limits and reduced to a technical level, the human body being looked upon merely as an object possessing certain definite structure and arrangements of parts which must be studied by the physician and surgeon merely for the purpose of localizing and treating diseases and injuries.

In more than one place the science has been debased to this level, and there is still a tendency in some quarters to deery any wider view and to insist that the medical student shall be taught only the technical details of human anatomy—that is, the positions, of organs and parts and their relations to each

other. Nothing could be more harmful, nothing could be more fatal to the best interests of the medical profession and the public than the general adoption of such a view. It would result in the medical man becoming a mere technician—that is, a man whose value is limited by the number of cases he has seen and treated.

Fortunately, there have always been in the medical profession many broad-minded men who have recognized that the man who has a wide knowledge of general principles is better adapted to meet unexpected circumstances than one who is merely provided with a memory of a certain number of observed facts, and luckily the opinions of our broader-minded colleagues have hitherto prevailed. The result has been, so far as anatomy is concerned, that in a large number of well-equipped medical schools and medical departments of universities the teaching of anatomy has passed into the hands of specialists—that is, into the hands of men who have spent the greater part of their lives in the study of the subject and who are enthusiasts in its teaching and study, looking upon man as the highest outcome of Nature and considering him and his relations, therefore, as worthy of the most careful study.

There are clear signs that this will be still more the case in the future. We recognize that it must be so; nevertheless, though we see that the movement is in the right direction, we must not minimize the danger which lies in the path and which will be inimical to the best interests of medical students if it is not carefully guarded against. The danger is that specialists occasionally lose sight of the practical applications of their subject and work at and teach only its more scientifically interesting features. It is a danger which exists in the cases of all subjects taught by specialists and it is one that must be carefully avoided in the case of anatomy, for the majority of the students of anatomy are, and so far as we can see, always will be, medical students, who in most cases take up the subject merely as the means to an end. The danger will be avoided if the electing bodies of teaching institutions will take care to appoint as teachers only men who have been through the medical curriculum and who understand the needs of the profession and its students, and if the men thus appointed will keep in touch with their colleagues who are practising the art of medicine and surgery. They can do that in many ways, of which one of the not least important is taking part in the meetings of medical associations, and thus keeping in touch with the general knowledge of the profession and its relationships to their own special branch, and on that account it is important that there should always be an Anatom-

ical Section at the annual meeting of the British Medical Association.

It should, however, be remembered that the object of a medical curriculum is not to turn out a finished anatomist any more than a finished physician or surgeon, for that is an impossibility in the time through which the curriculum extends. The object should be to give the men passing through the curriculum a wide knowledge of the principles on which they must rely in the practice of their profession, a sufficient knowledge of the details to prevent them making any serious mistake when they first begin to depend upon themselves, and a sufficiency of general knowledge to enable them to take their places as members of a community who are able to appreciate the interests of their fellows, and, what is not least important, an understanding of man's place in Nature and his relationship to Nature's general laws.

It should, therefore, be the object of anatomists to avoid entangling medical students in a superfluity of detail. They should insist upon a thoroughly sound knowledge of the general relations and arrangements of the more important organs and parts of the body, a good knowledge of the general principles which underlie the relationships and arrangements and the advantages derived from them. They should endeavor to make their students acquainted with the general laws of growth and development and with abnormal conditions so far as they are produced by deviations from the general laws of growth and development, and, carrying on the work done in the Biological Department, they should draw attention to man's relations to other animals in all cases where such relations are evident, and are instructive of the methods by which man has been evolved and the means by which he retains his place in the world. In addition, however, they must see that their students acquire a sufficient knowledge of the detail of the various parts of the body and their relationships to enable them to deal successfully with any emergency of daily life; but, with this exception, it is more important that the students should know the general principles upon which the various systems and organs are constructed, and those on which they are modified, than that they should memorize details which they can look up at any time, whenever necessary, in the numerous good text-books which are now at everyone's disposal.

Section of Obstetrics and Gynecology.

A. H. FREELAND BARBOUR, M.D., PRESIDENT.

PRESIDENT'S INTRODUCTORY REMARKS.

THE RELATION OF GYNÆCOLOGY TO THE WORK OF THE GENERAL PRACTITIONER.

Gynæcology holds out one hand to the general practitioner and the other to the specialist. She has her grand manner, in which, adopting the style and tools of the surgeon, she rivals him in brilliance of work; yet I am not sure but she is greater when, in the guise of the family physician, she cares for the health of the mothers and growing daughters of the community. She is equally at home with the brilliant operator and the sagacious practitioner; and when honors go round, will the greater fall to the operator in his theatre furnished with every appliance and waiting for his patient, or to the practitioner in his gig starting on a long drive across the moor?

Gynæcology as a specialty is sufficiently in evidence in the programme of work in this Section, and therefore I devote the few minutes of this introductory address to the relation of gynæcology to the work of the general practitioner.

The medical student starts with a wrong idea of gynæcology, for which the term "diseases peculiar to women" is in part responsible. Instead of applying the general principles of pathology to pelvic diseases, he thinks that these have a special pathology. He fails to recognize that apart from the peculiarities of the anatomical structures involved, and the physiological changes implied in menstruation, there is no difference between salpingitis and appendicitis, or that epithelioma of the cervix does not differ from epithelioma of the lip. The difficulties which beset clinical teaching in gynæcology send him into practice inadequately prepared to deal as efficiently with diseases of the reproductive system as with those of other systems in the female; and this insufficient equipment develops in the mind of the laity the idea that a special knowledge is required to deal with disease in this part of the body, a special knowledge as distinct from the experience which comes to a man as the result of having devoted his attention to one branch of medicine.

Now, from one point of view, there is no more reason to treat gynæcology as a specialty than obstetrics, which is admitted to be part of the work of the general practitioner. A moment's consideration will show that the great majority of gynæcological cases must be at first in the hands of the general practitioner. A

married woman expects to be treated in the first instance by the physician who attended her at her confinement, and it is for him to say when she should pass beyond his care. The examination of her case is at first in his hands, the diagnosis of her condition rests with him, and the routine treatment of chronic cases, of what we might describe as minor gynæcology, should be relegated to him.

The recent remarkable development in operative gynæcology has led to the idea that the surgical aspect of gynæcology is gynæcology itself. But this is only one side of it; it has what I might call its medical aspect also.

The term "specialty" applied to gynæcology raises the question as to what we mean by a specialty. Gynæcology is not a specialty in the same sense as mental disease, or even diseases of the eye. When a case of mental disease presents itself the practitioner at once recognizes that here is a case which does not belong to him. And the same is largely true of diseases of the eye. Specialism in gynæcology, apart from major gynæcological operations, is more akin to specialism in diseases of the heart or lung, in which, by devoting special attention to affections of one system, and gaining a wider experience in it than falls to the general practitioner, the physician has come to be recognized as an authority on diseases of a given system.

From this point of view it may be said that the way to the specialist in gynæcology passes through the domain of the general practitioner, and that the specialist is to be called in when the general practitioner recognizes that he has not the training or experience to enable him to diagnose or to treat successfully his patients. This view of the subject requires a higher standard of knowledge than he at present possesses, and we stand at the parting of the ways. Is gynæcology to be relegated to the post-graduate course, to be studied only by those who have a bias towards it? Or is it to be made an integral part of the student's training, so that at its termination he will know at least the elements of clinical gynæcology. Of clinical as distinct from systematic, which implies that every student must be taught clinically, and, when possible, examined clinically. I know the difficulties which the latter proposal implies, but from the relation of the diseases of women to obstetrical work, from the reasonable expectation of the general public, from the very nature of the case, this seems to me to be the road along which we must advance at this parting of the ways.

While emphasis has been laid on the teaching of gynæcology to the student as against its postponement to a post-graduate course, a word is necessary as to the manner of presenting it.

While taught as a specialty it should be taught in relation to medicine, surgery, and midwifery, the tripod on which the practice of medicine rests. If these three subjects were represented by three circles, side by side, gynæcology is a fourth intersecting the three. The defect in medical education at present is that each subject is taught as it is in itself instead of in its relation to the other subjects of the curriculum. If the teacher in each subject kept before him the relation of his subject to all the others the student would not be in a hurry, as he is at present, to escape from an over-burdened curriculum into general practice. He would begin to be interested in knowledge as an end in itself. At present the utilitarian, which passes readily into the mercantile, bulks too largely in his mind. Aristotle makes the important distinction between what is useful or yields revenue and what is liberal or tends to enjoyment. The study of medicine, if taken in the proper way, might become a liberal education while not ceasing to be a professional one. But I have wandered from my text. My object was to suggest to those who have to do with the teaching of this subject a method of presenting it.

There is another aspect of the same question which I would venture to lay before my colleagues who are engaged in the practice of gynæcology, and that is the necessity of taking a broad view of a case. Specialism is a peak in a mountain range and its development is subject to the same law. A broad foundation must be laid for knowledge, remembering that the height of a hill is related to the breadth of its base. Some rise, like Fujiyama, abruptly from the plain, volcanic in nature, produced by a sudden outburst of imprisoned force. Such are the geniuses of the medical profession. More usually, however, a peak is produced by a gradual process—for Nature is rarely in a hurry—which leads to its appearance as a member of a mountain chain. The specialist is slowly differentiated from his fellows like a peak in the Rocky Mountains—*Brit. Med. Jour.*

Section of Ophthalmology.

R. MARCUS GUNN, F.R.C.S., PRESIDENT.

PRESIDENT'S INTRODUCTORY REMARKS.

Gentlemen,—After crossing wide seas it is a privilege to find oneself among friends—friends who speak one's own tongue, and who are equally and simultaneously engaged in similar work. In such a meeting as is now being held in this city there must be

great advantage, and I value very highly the honor of being asked to preside over our Section.

Among the instructions I received on taking this office one is prominent, that I was not expected to give a regular address; in fact, gentlemen, you do not come here for any such purpose, but we are all met to compare notes and have our suggestions and opinions weighed, compared and criticized.

Before proceeding to our regular business, however, it is fitting that we should remind ourselves and think for a moment of the great loss that Canadian ophthalmology has sustained, since the last annual meeting of this Association, in the death of Professor Buller, of Montreal. Trained at Moorfields, he held office as house-surgeon there for a considerable time, and some of my earliest recollections of the hospital are associated with this period. Buller left there a record of good work well done. His position and his work in Montreal are known to us all, and his striking personality was familiar to most here. It seems but yesterday since he, in collaboration with Dr. Casey Wood, of Chicago, brought to our notice the effects of poisoning by wood-alcohol in a memoir that is already classical. But, apparently in full vigor, he was claimed by an insidious disease which found no remedy, and, as we bitterly remember to-day, Professor Buller is no longer with us.

It is part of my duty to draw your attention to certain rules which must guide our discussion and papers.

[The President here read the rules.]

We welcome most heartily all our visitors, and certainly not least our esteemed colleagues and professional brethren from the United States of America. We are glad that so many have been able to join us here, and in your name I invite them most cordially to consider themselves for the time being members of our meetings, with all privileges, and under the same rules of procedure as ourselves.

Section of Physiology.

PROFESSOR W. D. HALLIBURTON, M.D., F.R.S., PRESIDENT.

PRESIDENT'S INTRODUCTORY REMARKS.

PROTEID NOMENCLATURE.

In the subject I have selected for my communication I appear before you as a delegate from a joint committee of the physiological and chemical societies of England appointed to consider the question of proteid nomenclature, and of which I was ap-

pointed chairman. It is specially desirable that uniformity in terminology should be adopted by the English-speaking nations, and if our friends in France and Germany can also see their way to fall into line so much the better.

It is one's earnest hope that by such means the present confusion, which is so great a stumbling-block to writers, teachers, and especially to students, may be removed. I fear, however, that past attempts to secure uniformity of nomenclature have not been attended with very great success. Some years ago the Chemical Society in London appointed a committee to formulate nomenclature, but their recommendations have never been universally adopted by those who write and speak English. They suggested definite meanings, for instance, to certain terminations; for example, *ol* is the affix selected for alcohols, *ine* for basic substances, *in* for materials of more indefinite structure. Yet we still see leucine and choline spelt without the final *e*, and gelatin with it. In America, where we should have anticipated some amount of support, the old non-conforming conscience has asserted itself, and the tendency there has been in the direction of Germanizing rather than Anglicizing chemical names; creatine is spelt kreatin, sulphur appears as sulfur, and the final *e* in chloride, sulphate, and other salts, is usually absent. There is no harm in the phonetic replacement of *ph* by *f*, or of the hard *c* by *k*, but the words chlorid, bromid and bromat strike the conservative Englishman as being neither euphonious or rational.

The object of the committee's recommendations has been as far as possible to retain existing terms, and to reconcile the way in which they are employed in Great Britain, America and the Continent of Europe. An initial difficulty met the committee in the selection of the general name for the whole group. The term "proteid" used for it in England, is restricted to a sub-group (the conjugated proteids) by the Germans. The word "albuminoid," still employed by analytical chemists in England, and also by French physiologists in the same sense, is in Germany and also by German physiologists restricted to the heterogeneous group, of which gelatin and keratin are instances. The word "albumin" is fairly universally bestowed on a sub-group; its adoption as a family name would make the present confusion worse, and there is no adequate English translation of the homely German term "Eiweissstoff."

After much debate the word "protein" was recommended as the general name. It is at present so used in America and to some extent in Germany (*Proteinstoffe*). This word has the advantage of admitting of the derived words, "protease," "protease," etc., and it has, after all, the ring of familiarity. We have therefore suggested the abolition of the term "proteid."

The sub-classes, beginning with the simplest, would be as follows:—

1. Protamines.
2. Histones.
3. Albumins.
4. Globulins.
5. Sclero-Proteins.
6. Phospho-proteins.
7. Conjugated proteins.
 - (a) Gluco-proteins (for example, mucin).
 - (b) Nucleo-proteins.
 - (c) Chromo-proteins (for example, hæmoglobin).

For classes 3 and 4 (albumins and globulins) a general term would be advisable, especially from the teachers' point of view. We have not been fortunate enough to find one which would prove acceptable.

For class 7 we still retain the double-barrelled expression "conjugated protein," mainly because we were not sufficiently lucky to hit upon a single descriptive word. The term implies that here we have to deal with substances in which the protein molecule is united to a prosthetic group. We have ruled out of this class the vitellin-caseinogen group and put them in a separate compartment labelled "phospho-proteins" (class 6). The prefix "nucleo-" frequently used in relation to these substances is incorrect and misleading.

The new word "sclero-protein" replaces the word "albuminoid" (gelatin, keratin, etc.) as employed by English and German physiologists. The prefix indicates the skeletal origin and often insoluble nature of its members.

Coming next to products of protein hydrolysis (a term preferable to proteolysis), the committee recommend that these be classified as follows:—

1. Infra-proteins.
2. Proteoses.
3. Peptones.
4. Polypeptides.

Infra-protein replaces albuminate (acid-albumin, alkali-albumin). The termination *ate* implies a salt and so is objectionable. These first degradation products are obtainable from both albumins and globulins, and after much consideration the committee recommend the prefixing of "infra" (or possibly "meta," which some prefer) to the word "protcin" as an indication of comparatively slight chemical alteration.

The term "proteose" includes albumose, globulose, gelatose, etc. The sub-division of these into proto-, hetero-, deutero-pro-

teoses, etc., and the various modifications of Kühne's original classification were considered by the committee, but they have wisely determined that at present the whole matter is in too unsettled a state for any final nomenclature to be proposed.

The household word "peptone" is not likely ever to disappear from chemical literature. We, however, propose that it should be restricted to those further products of hydrolysis which cannot be salted out from solution, but which nevertheless still give the biuret reaction.

In the course of the discussion on this subject we were confronted with the discovery that there are certain vegetable proteins which have hitherto been regarded as peptones which do not give the biuret reaction. It seems impossible at present to bring exceptional substances of this kind into any general classification, and the same is true for those curious vegetable proteins, such as gliadin, which are soluble in alcohol.

The polypeptides are still further on the down-grade, though most of those we are acquainted with are the synthetical products of amino-acids which Fischer has prepared. They do not as a rule give the biuret reaction, but their exact relation to the peptones is still undetermined.

In conclusion, the committee considered a few special cases of terminology. They had, for instance, some difficulty in assigning to fibrin its proper place in their classification, but ultimately put it among the derivatives of globulins, for its mother substance, fibrinogen, is a member of that group.

They had no difficulty about caseinogen and casein, and strongly urge the continued use of these words in the sense now employed in the majority of English text-books, that is, caseinogen for the principal protein of milk, and casein for its coagulated condition brought about by the rennet ferment.

In the case of the muscle proteins they are equally unanimous that the original terms, of which I am the unhappy parent, should be adhered to. The new words introduced by v. Fürth have only produced confusion, especially among students. The terms to be adopted should therefore be "paramyosinogen" and "myosinogen" for the proteins of the muscle-plasma, "soluble myosin" for v. Fürth's soluble myogen-fibrin, and "myosin" for the final product.

I am quite aware that it will not be easy in a meeting like this to adequately discuss the numerous points raised; the present occasion must be regarded rather as a preliminary feeler on the question, and we propose to submit the matter to various societies of physiologists, among others to the American Physiological Society for careful consideration and report.—*Brit. Med. Jour.*

Section of Surgery.

SIR HECTOR C. CAMERON, M.D. (Glas.), PRESIDENT.

PRESIDENT'S INTRODUCTORY REMARKS.

Gentlemen,—I congratulate myself, and still more I congratulate you that, by request of the Executive of the Association, the Presidents of the various Sections will abstain from delivering any formal addresses in opening, this morning, the business of their respective Sections. I recognize fully the wisdom of this decision and most willingly bow to its requirement. But I feel that I should ill requite the kind favor which has placed me in the honorable position I occupy, and should do but scant justice to my own feelings were I not now, in a single sentence, to say to you how very greatly indeed I appreciate the distinction thus conferred upon me.

It is a high honor, under any circumstances, to be invited to fill such an office. But I cannot help thinking that both the interest and the sense of honor attached to it are greatly enhanced when the Association, deserting its ordinary home circuit, justifies its imperial character by accepting an invitation to visit one of the chief cities of the Greater Britain across the seas—one of the most important centres of this great Dominion of Canada.

We who practise our profession in Great Britain and Ireland are never forgetful of the great and daily increasing debt which surgery owes to those who cultivate its science and art on this side of the Atlantic; and we therefore naturally look forward with keen anticipation to the benefits which cannot fail to accrue to all of us from the instructive and valuable intercourse which we shall have here with our Canadian brethren, as well as with those American surgeons who will do us the honor of attending our meetings.

You will perhaps here permit me to offer to the latter a most hearty and fraternal welcome. We trust they will take a full share in all our discussions, giving us the benefits of their experience and of those opinions which they are so well qualified to express on the various important and interesting subjects which are to be brought before us. These subjects constitute, I think, a promising programme, provided and arranged for us by the zeal and industry of our Secretaries.

With their continued assistance, as well as with the countenance and help of the Vice-Presidents of the Section, I hope to be able so to guide and regulate the business that our meetings

may prove—what I am sure they can hardly fail to prove—a source of the highest interest and value to all of us.

Without further preface, gentlemen, I invite you to proceed with the work of the Section.—*Brit. Med. Jour.*

Section of Therapeutics.

DONALD MACALISTER, M.A., M.D., D.C.L., LL.D., F.R.C.P., PRESIDENT

PRESIDENT'S INTRODUCTORY REMARKS.

AN IMPERIAL PHARMACOPOEIA.

First, let me express the pleasure which we who come from the Old Country feel in meeting once more on Canadian soil. We remember the impulse to corporate expansion, the realization of our Imperial responsibilities as a profession, that came to us when the Association met at Montreal. The force of that impulse is still felt among us. It was good, it is good, for us to be here; not only that we may meet face to face with those of our kinsmen beyond the seas whose names are associated in our minds with good work ably done for the advancement of our common science, but also that we may be braced by breathing your larger air, and by coming into closer touch with your strenuous vitality.

In the second place, I would seize the occasion to say a word on behalf of the *British Pharmacopoeia*. As chairman of the committee that is charged with the preparation of our national medicine-book, it is not inappropriate that I should seek to interest this Therapeutic Section, and particularly the Canadian members of it, in our work for the profession. The time for the next revision is approaching, and we desire to make the new book a better expression of our ideal than has hitherto been practicable. Forty years ago the Medical Council declared that in the *Pharmacopoeia* it desired "to afford to the members of the medical profession and those engaged in the preparation of medicines throughout the British Empire one uniform standard and guide, whereby the nature and composition of substances to be used in medicine may be ascertained and determined." In 1898, with the help of the medical and pharmaceutical authorities throughout the British dominions, the first effective steps were taken to produce a work adapted to the general and the local requirements of all parts of the Empire. Our efforts were materially aided by a Canadian committee, under the leadership of Dr. Blackader, one of your Vice-Presidents. In the *Indian and Colonial Addendum* of 1900, a further step was taken to meet the

needs of particular localities outside the United Kingdom. Medicinal plants and other substances which had been suggested for inclusion by colonial authorities, but which were little known and little used at home, were therein dealt with, and official sanction was given to their local employment. At the instance of the North American colonies such additions to the materia medica as couch-grass, arnica, cotton-root bark, grindelia, black haw, wintergreen, sesame oil, and turpeth were introduced, and suitable preparations containing them were described. But it was added that "with regard to the sources, preparations and properties of some of these drugs, further investigation, especially in the countries in which they are found, is much to be desired." And a hope was expressed that their official recognition would conduce to research of this kind.

Since that date the new United States *Pharmacopoeia* has been issued (1905). The British committee has observed with gratification that it exhibits a marked tendency to uniformity with the *British Pharmacopoeia*, and that it includes just such information about some of the "North American" drugs of the *Addendum* as was desired. It also embodies the conclusions reached by the International Congress on Pharmacopoeial Unification, which, with Professor H. C. Wood, I was privileged to attend as the Government delegate at Brussels in 1902. These conclusions have now been ratified by an international agreement between the various pharmacopoeial authorities of the civilized world, and have already been observed in framing the new pharmacopoeias of Austria, Holland, Belgium, Spain, and the United States. I need not say that they will also be embodied in the next *British Pharmacopoeia*. They refer solely to the unification of the strengths of drastic or poisonous drugs and preparations. They seek to secure that throughout the world medicines which bear the same name, and whose potency demands that they shall be used with cautious precision, shall mean the same thing, and shall possess the same determinate strength.

Differences of tradition and environment will long preclude the complete harmonization of the numerous national pharmacopoeias; but no such differences stand in the way of adapting the *British Pharmacopoeia* to the needs of all the nations and peoples that are included within the world-wide dominion of Greater Britain.

May I therefore take advantage of my temporary position to say that without Canadian co-operation we must fall short of our ideal? The new *Pharmacopoeia* will be condemned to antenatal mutilation. Might not a representative committee be formed under the auspices of this and other medical associations

of the Dominion for the purpose of formulating your special requirements, and of affording us the advantage of your special knowledge and skill? The committee at home will welcome your suggestions, and will give them its most careful consideration. In Canada you have experience in the use not only of the *British Pharmacopœia* and its *Addendum*, but also of the United States *Pharmacopœia*, and the French *Codex*. You can point out to us what discrepancies between these have proved to be of serious importance in practice, and how they may best be reconciled. You can tell us what non-official drugs are in widespread use among you, and therefore call for recognition in order that their characters and preparations may be exactly defined. You can inform us what articles in the *Pharmacopœia* are practically obsolete in this country, in order that we may have proper data for deciding as to their omission. Forms of adulteration or contamination with which we are unfamiliar at home may be within your experience; these we should know about when we are revising our standards and tests of purity. Questions of this kind, and others which will emerge on systematic inquiry, are scarcely to be compassed by the home committee without Canadian assistance. I am sanguine that, after this straight hint, the assistance will not be withheld.

MEDICAL RECIPROCITY.

Before we proceed to the business of the day, allow me a few words on a kindred subject. The co-operation between the Dominion and the United Kingdom, which I have suggested, need not be limited to the preparation of an Imperial Pharmacopœia. Some of us would fain see it extended to the whole field of medical study and practice. You may be aware that by our Medical Act of 1886, a person who holds a recognized colonial medical diploma granted to him in a British possession, who is of good character, and who is legally entitled to practise in that British possession, is also entitled, without examination in the United Kingdom, to be registered in the *Medical Register*. But before a colonial diploma can be thus "recognized," the Privy Council must be satisfied that the British possession in question affords to home-registered practitioners such privileges of practising there as to His Majesty may seem just. And by an Act of 1905 it is further provided that for this purpose a Province or State in a larger federation shall be deemed a distinct possession, and therefore entitled to apply for recognition on its own account. Orders in Council have already been issued applying the Act to New Zealand, the States of Australia, the Provinces of India,

Ceylon and Malta, all of which grant medical diplomas of their own. And as these diplomas have been recognized by the General Medical Council, their holders are at once made capable of registration in the British *Register*, and of acquiring all the rights and privileges which registration confers. A similar enactment exists in relation to foreign countries, and already the Kingdom of Italy and the Empire of Japan have been admitted to corresponding privileges. But, with one exception, the Provinces of Canada have not yet applied for admission, and to that extent the medical federation of His Majesty's dominions is incomplete. The exception is Nova Scotia, to which the Medical Act was extended by an Order in Council on May 11th in the present year. The Medical Council learned with great satisfaction of the step thus taken by the Maritime Province, and it looks forward with interest to like applications from the other great Provinces of the Dominion. I am aware that on your Statute Book there stands a Medical Act of 1902, which, were it in operation, would go far to complete the confederation of the Provinces by providing for their common action in medical matters, and by assimilating and extending their professional privileges. And I am also to some extent aware of the internal difficulties that have hitherto prevented the Act from coming into effect. But these internal difficulties need not affect the question of Imperial recognition and reciprocity. Under our recent legislation each Province can negotiate for itself with the home authorities, as Nova Scotia has done. It need not wait for the others. His Majesty in Council is the arbiter as to the justice of its claim to be included in the medical federation of the Empire, and to be granted the wider citizenship which that implies.

As things stand, however willing the powers at home may be, a medical graduate of Ontario or Quebec cannot legally hold a medical appointment in the naval or military service of the King. He cannot be appointed surgeon to a British ship, or to any hospital or other public establishment, body or institution in the United Kingdom. He is ineligible as a medical officer of health; he cannot so much as be a candidate for one of our diplomas in hygiene or State medicine. And lastly, he may not use his degree as a qualification for private practice in the United Kingdom or in any of the British possessions—and they are not few—that are governed by our Medical Acts. These disabilities must often be irksome, and the more because, so far as Canadians are concerned, they are now self-imposed. The Imperial Parliament at least has opened the way for their removal. The next and only remaining step has to be taken by the provincial authorities.

Every year Canadian graduates come over to study and to ob-

tain diplomas at home. When I observe your splendidly-equipped medical schools and hospitals, I cannot help wishing that a strong reverse current might be set up, and that our own students and graduates might acquire the habit of crossing the Atlantic to complete or to supplement their medical education in Canada. That mutual recognition of professional qualifications would further and foster this tendency I am convinced; and I am not less sure that such educational interchanges would exert a powerful influence for good, not only upon us but upon you. Sympathy comes from mutual understanding; there is nothing so divisive as mutual ignorance.

I close, therefore, on the note with which I began. We value these occasional meetings outside our islands because they lead to our better knowledge of each other, and so strengthen the bonds of brotherhood which unite us. But the meetings are too rare to accomplish all that is desirable in this kind, and many of us are middle-aged and more before we can take advantage of them. If we could but have more intercourse, and have it younger, our mutual sympathies and affections would be warmer still. It is for this reason that I have risked your impatience by wandering a little from the proper subject-matter of our Section. Let us now return to Therapeutics.—*Brit. Med. Jour.*

Progress of Medical Science.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH
AND F. W. MARLOW.

Post-operative Ileus.

Finney, Baltimore, in *Annals of Surgery*, June, 1906, reports 26 cases of post-operative ileus. He classifies the cases into early (before the wound has healed) and late; also into mechanical, septic (peritonitis) and adynamic (disturbances of innervation or circulation). Mechanical ileus is usually characterized by a later onset, the presence of visible peristalsis, colicky pain, asymmetrical distension, little rise in pulse and temperature. In the septic form the symptoms may be those of peritonitis; when post-operatively the ileus develops without the above symptoms it usually is adynamic. It often is impossible to make an exact diagnosis; in very early cases infection plays the predominant rôle, in later ones adhesions are more often the cause. The author hopes that the opsonic index may prove of service in the differentiation of the various forms, but, at present, the data are insufficient. The indican test is of little value. Many of the symptoms of profound depression are due to autointoxication by poisonous products especially by neurin. Severe symptoms more often occur early when the venous circulation of the intestine is obstructed. Partial obstruction is apt to become complete when some indiscretion of diet increases the production of gases. The formation of adhesions is of special interest and yet no reliable knowledge as to the cause of their appearance or disappearance has been obtained. Our ability to control their formation is consequently very limited—filling the peritoneal cavity with sterile saline solution, application of Cargile membrane, of oil, early catharsis, etc., have all been recommended, but are all of little use. In the 26 cases reported, 22 were operated upon a second time for the obstruction. Sixteen cases followed appendicitis, two were after strangulated hernia, two typhoid perforations, two cholelithiasis, one case each after pyloroplasty, tuberculous, peritonitis, volvulus and nephrotomy. The causes of obstruction were chiefly, adhesions (7), kinking (7), bands (3). In eighteen, or 73%, the cause of obstruction was due directly or indirectly to peritoneal adhesions. The seat of obstruction was in the small intestine in twenty cases, plicrus or duodenum three, sigmoid two, ascending colon one. Peritonitis was present at the time of the primary

operation in fifteen, at the secondary in eight. In most of the cases the treatment consisted of freeing the adhesions or in performing an enterostomy. Ten patients died. Prompt operation should be resorted to after palliative treatment has been given a fair trial. The prognosis is unfavorably influenced by the presence of infection; in its absence it is excellent.

Mortality After Prostatectomy.

B. Tenney and H. M. Chase, Boston (*Journal A. M. A.*, May 12), have analyzed the mortality statistics of over a thousand cases of prostatectomy, with special reference to the mortality, counting as fatal cases all within six weeks of the operation and excluding such statistics as cover only a shorter period of observation, though they might give a more favorable result. The mortality by the perineal operation in their statistics is slightly less than that of the suprapubic method, and the difference is very much less in the statistics of their collection than in those collected by Proust, Watson and Escat. There is also a decidedly rising mortality from the sixth to the eighth decade, the percentages being, respectively, 5.8, 9.5 and 15, thus indicating the advantages of early operation. The statistics also show certain fatal periods; in the 73 deaths more occurred in the first forty-eight hours than in any other two days, 23 in all. In the seventh, eighth, and ninth days there were 12 deaths; on the thirteenth, fourteenth and fifteenth there were 6 deaths, and from the twentieth to the twenty-second days, inclusive, 7 deaths. Two-thirds of all the deaths occurred during these fatal periods. The duration of life following the two operations is almost identical. The favorable statistics of certain operators are noted. Out of the 617 perineal operations, we find two men doing 211 operations and losing 2 cases within 12 days, as compared with 206 of the other operators with 22 deaths in the same period. Including the suprapubic operations, there is a total of 45 fatalities in 790 operations within the same period. The two men mentioned do not appear to have used the most rapid method or to have specially selected their cases. The presence of vesical calculus did not seem to have any favorable influence on the mortality, as claimed by Moullin, Richardson and others. The authors think that many of the fatalities must have been avoidable, and insist on the importance of due preparation of the patient, special care in the selection and use of the anesthetic, and greater attention to the after-care. A prostatectomy is not a completed piece of handiwork, like most clean laparotomies and dissecting operations, but needs constant attention for forty-eight hours especially, and later at intervals.

Treatment of Blennorrhœa in Women.

One scarcely needs to remark that blennorrhœa is both frequent and troublesome in woman. Dr. Houssiau observes that the folds and refolds, crypts and passages, are so numerous and so involved that an excellent opportunity is offered for the gonococcus to find lodgment, and antiseptics are of little service as a rule. It has well been said that it is a much more dangerous disease than syphilis. Not only is blennorrhœa very dangerous from the standpoint of discomfort, invalidism, and even death, but it is, unfortunately, extremely common. Its symptomatology offers very little that is new. It should not be forgotten, however, that one of the most unpleasant features of this disease is its frequent lack of symptoms, for thousands of women are affected with the disease without knowing it. As to the more frank expressions, consisting of frequent and painful micturition and the formation of pus tubes, the records of gynecology are only too emphatic. The physical signs of swollen nymphæ, red, patulous meatus; roughened and red vaginal entrance, are too well known to be reiterated, and the latter manifestations, especially when the inflammation is intense, such as condylomata, ulcers of the neck of the uterus, cervical endometritis, cervicitis, swollen and patulous os, all call for minute examination and thorough and painstaking treatment. Such treatment should be local and general. Internally the old reliable aromatic oils, such as sandal, etc., retain their position, while for local treatment tamponing with ichthyol affords the best results. Such tamponing may be continued even while the woman is pregnant. The author states that great care should be taken that the true ichthyol is used, as within recent years a number of so-called synthetic "ichthyols" have been put on the market under various names or "synonyms," which are nothing more nor less than sulfonated petroleums. None of these substitutes has stood the test of time, as they have at times been found to be particularly irritating, and the author is emphatic in insisting on the use of the product that is derived from the bituminous shale from Seefeld, in the Tyrol, the true ichthyol as originally introduced by Unna, and made by the Ichthyol Co., of Hamburg. Permanganate of potassium solutions may be used previous to the application of the tampons. After such treatment, the author finds great improvement in from ten to fifteen days, not only in the urethritis, but also in the cervicitis, and the later installation of a 1- to 2-per cent. solution of silver nitrate may be of service in clearing up the miscellaneous infections in the glands and urethra.—*Annales de Polyclinique Centrale de Bruxelles*, Feb., 1906.

Histology of Roentgenized Malignant Tissue.

William Krauss in a paper on "Histology of Roentgenized Malignant Tissue" in the *Memphis Medical Monthly*, July, 1906, after having made histological examinations of tissues that had been subjected to X Rays, says:—

"It would seem from these sections that the Roentgen ray has in this case exhibited selective action only for those tissues which it is desirable to stimulate and preserve, whereas the malignant elements are only moderately damaged; yet there was subjective improvement, which seemed to justify further exposures."

He draws the following conclusion: "Judging from the history of these cases, it would appear that the Roentgen ray has no place in the treatment of real malignancy, meaning that stage in the development of cancer when physiologic resistance is distinctly impaired, whereas surgery can frequently to some extent restore this important function. I make this statement in spite of several apparent cures in my hands. I believe the X-Ray treatment of cancer should be limited to slowly growing superficial lesions where cosmetic effect is of prime importance, but even here it should be attempted only by an expert whose judgment and experience enable him to tell when he must surrender the case to a surgeon."

Note.—We are very much impressed with the stand taken by Dr. Krauss and our experience leads us very much in the same line. The unselective action of the X-Ray is its greatest drawback. It is impossible to limit its action. The notes of one such as is given in the article above referred to is very opportune and should do a great deal of good.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

The Eyestrain Origin of Epilepsy.

The question of whether wearing spectacles will relieve or cure epilepsy is one that many ophthalmologists have been discussing vigorously for years. In the State of New York there is an asylum for epileptics, known as the Craig Colony, in which there are several hundred patients. The Superintendent of the colony is Dr. William Spratling, well known as the author of "Epilepsy and its Treatment," a standard work on the subject. Three years ago, Dr. Gould, of Philadelphia, an ophthalmologist of

high standing, and editor of *American Medicine*, and who was a believer in the occasional eyestrain origin of this condition, was allowed by Dr. Spratling to test the matter by fitting glasses on 68 epileptic patients.

The report of Dr. Spratling on the result states, at the end of a year, that the experiment had been fruitless—that of the 68 cases, 8 had had no attacks for several months before and after fitting of glasses, and hence do not count either way; 3 died or ceased wearing glasses; 8 had the same number of attacks before as after wearing the glasses; 19 showed a decrease in attacks; 30 showed an increase in the number of attacks. The number of attacks before fitting, of the 19 patients benefited, was 861; attacks after fitting, 479; decrease 382, or 44 per cent. The 30 who showed an increase of attacks had before the fitting 528 attacks, and afterwards 941; a gain of 413, or almost 80 per cent. The figures in the individual cases are so widely different that in Dr. Spratling's, the expert's, opinion, epilepsy is not a single prescription disease, and that the correction of the refractive abnormalities of the eyes alone is not at all likely to cure it.

In reference to this test. Dr. Gould writes (in the *Annals of Ophthalmology*):—

Three years ago, at Craig Colony, New York, I undertook a little test designed only to show that the case of the epileptic is not always hopeless, and that eyestrain might rarely account for the presence of this opprobrium of medicine. The results, as taken from the confused statistics of the official report, were as follows: The tests concerned 68 patients, all chronically diseased, many hopelessly so. Of these, according to the report, the seizures were lessened in 19 cases by 392, or 44 per cent., in three months. One patient, again according to the report, was cured, while the average of cures, during the whole period of the existence of the colony, and by all other methods of treatment combined, was one in eighty. The figures, I confess, are not worth much, but taken at their face value, one-third more cures, proportionately, by ocular treatment than by all other methods is, indeed, better than I had expected. This proportion, moreover, is doubled by a fact I have subsequently learned, the cure of a second patient who left the institution, and who had no seizures so long as he wears his glasses, so long as they are kept straight and adjusted, and so long as they are changed when advisable.

I have epitomized this story in order to emphasize several suggestions:—

1. The pleasure which the superintendent of the colony had, in his report, in pronouncing these results "disappointing," and in minimizing them, so that, since then, a hundred delighted imita-

tors and echoers should be able to teach that eyestrain had no possible causal relation to epilepsy. In truth, one of the most inexplicable of psychologic riddles is the furious glee with which some specialists rush upon the stray medical dog who suggests that a disease, at least occasionally, may be due to an unsuspected cause. Just in proportion to the mystery of the etiology, the more utterly incurable the disease, then the greater is the haste, and the enjoyment, in pouncing upon the intruding cur.

2. The same eager delight is shown by some neurologists and editors of defunct medical journals who, ever since, have been growling and snapping in their post-mortem dreams. The sweet word *disappointing* was sniffled only two weeks ago, a propos de rien, by a well-known medical journal, and several years after its obsequies.

3. My mistake, of course, consisted in not having excluded from the test the old, hopeless patients, those on the edge of the grave, and hence incapable of convulsions after death. Epilepsy, once deeply established, is doubtless incurable. All we may hope for is the best cure, i.e., prevention. All public tests should be made upon the younger and less severely afflicted patients.

4. The misfortune of the test was that there was no resident oculist or optician to see that the most requisite conditions could have been carried out in the after-history. All oculists well know, e.g., that an astigmatic lens awry, or temporarily not worn, increases the liability to attacks.

* * * * *

Since this article was in type Dr. Spratling has published a paper called "Epilepsy and Eyestrain," in which he says that he greatly regrets that the patient he formerly reported as cured by spectacles did not fulfil the promise of recovery. For 15 months after the glasses were ordered the patient had no attacks; but he then broke his glasses, and while not wearing any glasses he had four attacks in January. Then he again "put on glasses," and had ten attacks in two months. For nine months there were now no attacks, but several a month occurred after this. This ludicrous clinical report is followed by the following still more ludicrous statement: "The sole point to which I wish to call attention is that the glasses in this case seemed to 'repress' the epileptic attacks in a manner not unsimilar to the 'repression' that is often secured by the use of bromides, and that, like the bromides, while they may mitigate the disease, they are without power to cure." A more capital example could not be desired of the folly of committing such experiments to the care and reporting of those incapable by nature and training of realizing the simplest principles and conditions involved. Fortunately for

those who do not delight in consigning the epileptic to despair and therapeutic nihilism, the very report (as happened before) is most encouraging. Nothing could be more convincing of the power of the correction of ametropia than the facts set forth—the freedom from attacks of the patient for 15 months, their resumption with the broken and abandoned glasses, and all the rest of the history. The most important points of the entire affair are, of course, wholly omitted—what kind of glasses were ordered after two years, who ordered them, who overlooked the fitting, etc. These reports by Dr. Spratling come out every two or three years with all the clinical discrimination and clarity of a stone-crushing machine into which are cast boulders or epileptics, with the foregone conclusions of “disappointing” and “regrets.” One is reminded that there is a “reformatory” in the United States where a half bushel basket of minus spherical spectacles is placed by the side of another basket of plus spherical lenses; the poor prisoners with headache or bad vision are then told to choose their own glasses from either basket and go off and wear them! And then this “repressive” effect of glasses like unto that of the bromides—what a mixture of science, sympathy and therapeutic zeal!

Thiosinamine in the Treatment of Tinnitus Aurium.

An article in the *Medical News* by McCullagh details his experience with this drug. The following are his conclusions: (1) That this drug exerts a markedly beneficial action on ear disease accompanied by the formation of new connective tissue; (2) that this beneficial action is due to an increased pliability of this tissue, allowing the usual forms of treatment to accomplish their object better; (3) that its administration should always be accompanied by mechanical measures; (4) that as good results may be obtained by administration by the mouth as hypodermically; (5) that better and more prompt results may be obtained in recent cases; (6) that it exerts a beneficial action on vertigo; (7) that care should be used in looking for contraindications; (8) that better results may be obtained with it in the relief of tinnitus than with any drug used heretofore.

The writer has purposely refrained from speaking of the result of its use on the hearing, as his original object in the use of the drug was an investigation into its effect on tinnitus, and he has not kept careful or accurate enough records of tests to make his observations along that other line of any value. He says, incidentally, that many of the patients under treatment have voluntarily mentioned or admitted upon inquiry a noticeable improvement in hearing, including those in whom the tinnitus was not

very much improved. In many cases this improvement has been decidedly marked.

Scheibe (*Münchener med. Wochenschrift*), abstracted in *Med. Rev. of Reviews*, has an analysis of the ætiology and therapeutic results obtained in a series of 527 cases of otitis media observed in private practice. The treatment employed may be summarized as follows: Acute middle ear disease without perforation is first treated either with the catheter or with the Politzer method. If the mastoid is sensitive the ice-bag is applied. In addition the abstinence from alcohol, and rest, are prescribed, and if there is an acute nasopharyngitis this is also treated. If the pain increases and there is bulging of the drum membrane, increasing tenderness over the mastoid, or fever with diminution of hearing, paracentesis is practised. If discharge is present, the meatus is daily washed, irrigated with warm $\frac{1}{4}$ per cent. boric acid solution, Politzer's method is used, and the meatus is insufflated with boric acid powder and is plugged with cotton. The ordinary systemic measures are also taken, and if there is evidence of involvement of the mastoid, as is shown by swelling behind the ear or bulging of the posterior wall of the meatus, the process is opened.

Editorials.

A BRIEF HISTORY OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association was founded at Worcester on July 19th, 1832, being originally designated the "Provincial Medical and Surgical Association."

On that day, fifty medical men attended a meeting at the Worcester Infirmary, convened by Dr. (afterwards Sir) Charles Hastings, to consider the formation of the proposed Association. Dr. Edward Johnstone, of Birmingham, presided, and after an address by Dr. Hastings on the objects contemplated, it was unanimously resolved that an Association should be formed; a code of laws was adopted, and officers elected. The Association began with a membership of 140.

At the first annual meeting, held at Bristol, on July 19th, 1833, it was announced that the number of members had increased to 316. Nearly 200 attended the meeting.

At the second annual meeting, held at Birmingham, on July 18th, 1834, 250 members were present, out of a total membership of 450.

The third annual meeting, held at Oxford, on July 23rd, 1835, was attended by more than 300 persons, the membership of the Association being then 500.

The fourth annual meeting was held at Manchester, on July 21st, 1836. The number of members of the Association was reported to be 600.

Formation of the first Branch.—The Eastern Provincial Medical and Surgical Association, which had been founded at a meeting held at Bury St. Edmunds, in the previous September, sent a deputation to the meeting, and a joint committee of the two Associations was appointed to consider the possibility of fusion. Subsequently it was arranged that the Eastern Association should dissolve as a separate body, and that its members should become members of the Provincial Medical and Surgical Association, and be constituted a Branch thereof.

At the fifth annual meeting, held at Cheltenham, on July 19th and 20th, 1837, the number of members was reported to be 940.

The rules relating to Branches were, as already stated, adopted, and it was reported that Branches had been formed at Bath, Wells and Southampton. An address of homage to Queen Victoria, who had just ascended the throne, was unanimously adopted and ordered to be presented.

In 1843 the membership was 1,628.

In 1847-48 laws were considered and adopted providing (a) for the expulsion of members guilty of unprofessional conduct; (b) for payment of the subscription in advance, and to deprive those in arrear of privileges of membership.

In 1853 the membership was 1,853.

In the years 1854 to 1856 reform of the constitution was undertaken, and in the result:—

(a) The title was altered to British Medical Association.

(b) The Council was made strictly representative, being elected by the Branches in the proportion of one member of Council for every twenty members together with the Honorary Secretary of every Branch *ex officio*.

The "General Council" so constituted appointed the "Executive Council," or, as it was henceforward called, the "Committee of Council."

In 1862 the annual meeting of the Association was first held in London. The membership of the Association was then 2,120.

In 1867 the Association first met in Ireland, namely, at Dublin. The scientific business of the annual meeting was for the first time arranged in sections, of which there were four, namely:—Medicine, Physiology, Surgery and Midwifery.

In 1873 the membership of the Association was 5,400.

" 1883 " " " " 10,050.

" 1893 " " " " 14,703.

" 1903 " " " " 18,189.

The British Medical Association, under its present constitution, is a federation of local medical societies, called Divisions. The Divisions are grouped for certain purposes in local bodies, called Branches. The aggregate of Branches composes the Association.

Each Division and Branch has its own local administration and

rules, subject only to such restrictions upon each as are deemed needful for the harmonious co-operation of all.

As part of the annual general meeting sectional general meetings are held for the consideration of matters pertaining to the medical and allied sciences. The officers of sections are appointed by the Council, which also has the duty of framing the regulations by which the proceedings are governed.

It is the practice of the Association that the President should inaugurate his year of office by an address to the annual general meeting of the Association, and addresses in Medicine, Surgery, Obstetrics, or kindred subjects, are also given on this occasion by distinguished members of the profession who are appointed for the purpose by the Council.

THE COUNCIL.

The Council is composed of certain officers of the Association, of members elected by the Branches, of members appointed to represent the Navy, Army, and Indian Medical Services, and of members, to the number of not more than one-tenth the elected members, co-opted by the Council; altogether about seventy members.

The Council elects its own Chairman, holding office for such period as the Council may assign (usually three years), and fixes the time and place of its own meetings, which in practice are held quarterly (and at other times when required) in London, and daily during the annual meeting in the place where that is held.

The Council, subject to the regulations of the Association, and the decisions of general and representative meetings, has the general management of the affairs of the Association, including the *Journal*, and appoints the paid officers. It determines the boundaries of Divisions and Branches, and under certain conditions the grouping for electoral purposes. It elects new members, if not residing within the area of any Branch, nominates honorary members for election by the general meeting, and has the power of expulsion on the recommendation of a Branch. Rules of Divisions and Branches are not valid until sanctioned by the Council.

The Council fixes the time of the annual meeting, controls the

general arrangements for general and representative meetings, and has entire control of the scientific work of the meeting, including the appointment of readers of addresses and officers of sections, and the determination of the programme of the sections.

The first-class travelling expenses of members of Council attending a meeting thereof are defrayed by the Association.

THE MONTREAL MEETING.

At a meeting of the British Medical Association held in Nottingham in 1892, Sir William Hingston said he trusted that at no very distant date the British Medical Association would see their way to paying Canada a visit. They would there find a heterogeneous population—French, English, Scotch, and Irish—but amongst them all an intense love of British institutions, and a very deep attachment to Her Most Gracious Majesty Queen Victoria. Again, in 1896, a number of physicians from Montreal and Toronto, speaking on behalf of Canada, invited the Society to hold the 1897 meeting in Montreal. The Council accepted the invitation without a dissenting voice, and nominated Dr. Roddick as President. Regarding the meeting in Montreal, we spoke as follows in the *CANADIAN PRACTITIONER* of September, 1897:—
“To say that the Montreal meeting was a grand success is simply giving expression to a well-known fact in very plain and simple words. One feels, however, that numerous accentuated superlatives are absolutely necessary, in giving anything like a correct description of this great gathering. We shall not attempt to use such, but shall simply say that the success of the meeting has in all respects exceeded the most sanguine expectations of all the physicians interested, both in Great Britain and Canada. Montreal is noted for her generous hospitality which has so frequently been shown in the past, but this time she far exceeded any and all of her former efforts. Her physicians united in a continuous and untiring effort to keep the machinery of the meeting in good running order, and to royally entertain their guests, both British and Canadian. Their work in the former direction

was perfect and complete, their hospitality was more than ordinary mortals could accept in its entirety."

Dr. Arthur Giles spoke as follows in the London *Lancet*:—"It seems to us that, with this meeting at Montreal, memorable as it will be in many ways, the British Medical Association enters upon a new career. Those of its members who are attending it from London will realize that in Greater Britain the medical profession is animated by the same spirit as at home. That with the common participation of membership of the same body there must be equally a common desire towards the same ends, the furtherance of the art and science of medicine for the sake of humanity, the promotion of fellowship between those who pursue the same calling. More than this, it may be hoped that as the Association expands, its sphere of work will widen too, and that some of these objects rehearsed by Dr. Roddick as originally propounded by its founders will be extended to all the Empire. The Association has long since ceased to be 'provincial,' it is now more than insular, and with its world-wide expansion must come the growth of new ideas, the emancipation from the fetters of narrow policies, and the working together of the medical profession of the British Empire to attain all that is most worthy in the promotion of professional aims, and to maintain a high standard of professional honor."

THE TORONTO MEETING.

The profession of Canada were greatly pleased last year to learn that the next meeting of the British Medical Association would be held in this country. The Council of the Association, in response to an invitation from Canadian delegates, decided that Toronto would be the place of meeting in 1906. We in Toronto considered that our city was highly honored by the decision of the Council; but we accepted all the responsibilities thereof with a certain amount of diffidence, to some extent accentuated by the success of the Montreal meeting. We are glad to be able to state, however, that the profession of Toronto were thoroughly united in their endeavors to make the recent meeting a success, and in so doing received the unanimous support of all Canada.

The *Montreal Medical Journal* spoke as follows:—"The British Medical Association will meet in Toronto in 1906. There are in Montreal many persons yet living who acquired some experience during the meeting which was held in 1897, and the Committee on Arrangements might learn of us."

We had commenced to consult with our friends in Montreal even before these words were printed, and we are glad to be able to say that we received invaluable assistance from them in more ways than we shall undertake to mention.

The work of preparation was placed in the hands of certain committees, of which the most important was the Arrangement Committee, who met regularly and frequently, and supervised in a general way the work of the other committees. The other committees completed the work assigned to them in a most satisfactory way.

The Exhibits Committee placed their museum in the main building of the University of Toronto. They also issued a museum catalogue which contained a plan of the exhibit halls, a description of the exhibits, and an index of the exhibitors and the advertisers. We understand that the exhibitors, as well as the members present, were thoroughly satisfied with the admirable work that was done by this committee.

The principal work of the Printing and Publishing Committee was the publication of a booklet called "Hand Book and Souvenir of Canada, British Medical Association, Toronto Meeting, 1906." No complaint has been made so far as we know as to the work of this committee.

The Entertainments Committee did much very valuable work, both in the interests of the visiting members and also their families. Among the entertainments provided were:—

1. The garden party given by the Lieutenant-Governor in the Government House Grounds.
2. Reception by the President and Mrs. Reeve in the University Quadrangle.
3. A garden party by Mr. and Mrs. H. C. Cox.
4. A garden party by the trustees at the Toronto General Hospital.
5. A reception by His Worship the Mayor and City Council at City Hall.

6. A band concert in the Dean's garden, University College.
7. A garden party by Mr. and Mrs. E. B. Osler.
8. A reception by the Commodore and members of the Royal Canadian Yacht Club, at the Island.

Among the entertainments provided for ladies only were:—

1. A coaching tour of the city.
2. A luncheon at the Lambton Golf Club.
3. A garden party by the University Women's Club.
4. A luncheon at the Hunt Club.
5. An excursion to Niagara Falls.

In addition to these official entertainments, we are glad to say that the efforts of the physicians of Toronto to entertain our visitors in a private way were better than the city has ever known before.

The profession of Toronto feel exceedingly grateful to the general public for the extraordinary interest they manifested in the meeting, and the valuable assistance they rendered in innumerable ways.

The Transportation Committee made excellent arrangements for transportation, especially for those who came across the ocean, and in addition mapped out many trips through various parts of Canada and the United States. Among the excursions arranged by the Excursion Committee were one to Niagara Falls, one to Muskoka Lakes, and one to Guelph, all of which were entirely satisfactory.

The Hotels and Lodging Committee did most admirable work; as a consequence all the visitors of both sexes were comfortably housed.

We cannot speak too highly as to the work of the Dinner Committee. It is no easy matter to conduct successfully a large banquet in a *big barn*. At the dinner given on the evening of the 23rd in the Victoria Rink, the service was good, the hot food was brought in *hot*, and the cold food was brought in *cold*. The wines were pronounced excellent by those who tasted them. The speeches were as a rule short, snappy and sparkling. The building was beautifully decorated. There were about 450 present.

The other committees that did good work were the Membership Committee, the Reception Committee, the Finance Committee, and the Pathological Museum Committee.

We purposely avoid mentioning names, because all the members of committees worked faithfully and well.

One of our friends from the United States has written a very kind letter, from which we extract the following, especially because of the criticism, which contains certain opinions with regard to the publication of the discussions on papers read in Sections which we cordially endorse:—

“The meeting as a whole was one of the best conducted that I have ever attended. The University buildings were an ideal place for the Sections, the rooms being in such proximity that one could wander from Section to Section without wasting time. As I have already expressed to you, the annual dinner was one of the best arranged that it has been my good fortune to attend. The various courses were excellent and served promptly, the hall itself was pleasingly decorated, and the only drawback was the size of the place, which precluded those seated at a little distance from hearing the excellent speeches. This, however, where so many were gathered, could not be obviated, and I do not see how the affair could have been better arranged.

“My only criticism of the whole meeting would be a mild protest against the continuance of the obsolete practice of requiring those who took part in the discussions following the papers read in Sections to personally write down their remarks. This was very annoying, for often while one was writing, the discussion of others was wholly lost to him. It is also impossible for one to put down on paper, after having participated in a discussion, just what he may have said, so that many of the excellent points made are irretrievably lost. If a stenographer takes down a discussion, and later submits his remarks to each participant, the result is much better, and the discussion becomes often of greater value than the paper presented. As editor of a medical journal, you are in a position to urge a change in this regard, and I sincerely hope that you will do so, since this matter is the, or about the, only defect in the management of the Association's meeting.”

The meetings were held in the various buildings of the University of Toronto. The general meetings were held, and the general addresses delivered, in the new Convocation Hall. The

Sections were held as follows:—Surgery, Chemistry Building; Medicine, Physiology and Therapeutics, Medical Building; State Medicine, New Science Building; Anatomy and Pathology, Biological Building; Laryngology and Otolaryngology, Ophthalmology, Physiology, Obstetrics and Gynaecology, Dermatology, and Pediatrics, Main Building.

Each Section had in addition a committee room adjoining for its officers. Many other rooms were provided, such as Reading and Writing Rooms, Post Office, Gents' Tea-room, Smoking Room, Ladies' Tea-room, Stenographers' Room, and Registration Room.

There was a general consensus of opinion that the addresses delivered in the Convocation Hall were of a very high order. These have already been published in the *British Medical Journal*, and from them we publish abstracts in this issue. When addresses are so uniformly good as these it seems a pity to spoil them by making abstracts: but limited space precludes the possibility of publishing them in full.

It seems to be one of the unwritten rules of the Association that no President of a Section shall deliver a formal address, but each is allowed to make "a few remarks." Some of these "few remarks" were vastly important, were highly appreciated by those who heard them, and will be found exceedingly interesting reading by those who had not the good fortune to be present.

It is difficult for any one, not present to have anything like an adequate conception of the high character of the men from the British Isles and the United States, and the magnificent work that was done by them in the different Sections. Most of our Canadian members in attendance have a fair idea of the excellence of the work done in the three Sections of Medicine, Surgery, and Obstetrics and Gynaecology, which were the most largely attended, but many do not realize that equally good (perhaps better from a scientific standpoint) work was done in the sections of Pathology, Physiology, Anatomy, and many others. So far as we can learn there never was such a uniformly high standard, as to papers and discussions, reached at any previous meeting. It was a revelation to many of us to discover such a large proportion of *great* men among our kinsmen from across the water. Their greatness was appreciated more highly

on account of the charming modesty which almost invariably accompanied it. The educated, cultured gentleman from our dear Mother Land is one of the finest specimens of humanity that can be found in the world.

It is also somewhat difficult to fully realize the inestimable value of the good work done by our dear, kind friends of the United States. Their great ability, combined with their keenness and alertness in discussion, assisted materially in making things "go with a hum." They are making such wonderful strides in the United States as to things medical that it is very hard to realize how rapidly they are forging to the front. Our most hearty thanks are due to the physicians, surgeons, and pure scientists of that country for their valuable assistance at the Toronto meeting.

We were so much surprised at the size of the meeting that we do not yet appreciate fully what such a large attendance means. Our estimate was 800 to 1,000, some estimated so high as 1,000 to 1,200. There were 1,984 members registered. Of these, 1,103 were Canadians. If we include the visitors from the United States, other invited guests, medical students, and ladies, we find that the total number in attendance was nearly 3,000. This is the largest meeting of the British Medical Association excepting one held in London, where about 2,200 members were registered.

In all cases the numbers greatly exceeded our expectations, but our greatest surprise was due to the large number of Canadians who put in an appearance. We have no doubt that the wonderful success of the Montreal meeting, to which we have so often referred, had much to do with the large attendance on this occasion.

NOTES.

Ontario Medical Association.

The annual meeting of the Ontario Medical Association was held on the evening of August 30th, at Toronto, the President, Dr. Geo. A. Bingham, in the chair. The meeting, which was a purely formal one, was very short, and the officers of last year were re-elected.

Canadian Medical Association.

The fifty-ninth annual meeting of the Canadian Medical Association was held in the new Science Building, College Street, Toronto, on the afternoon of Monday, July 20th, at 2 p.m. The meeting was comparatively brief, and entirely confined to business. The Committee on Reorganization submitted a report in which were outlined a practically new constitution and by-laws for the Association. On account of the importance of the report, and the small attendance of the meeting, it was decided to postpone the consideration of this report until the next annual meeting, which will be held in Montreal. The following officers were re-elected: Dr. A. McPhedran, of Toronto, President; Dr. Small, of Ottawa, Treasurer; and Dr. Geo. E. Elliott, of Toronto, General Secretary.

Immediately after the meeting there was a session of the Canadian Medical Protective Association. The annual report, showing that there was considerable increase in the membership and the financial strength of the Association, was presented. Dr. Powell, of Ottawa, was re-elected President, and Dr. Argue, of Ottawa, was elected Secretary-Treasurer in the place of Dr. J. A. Grant, Jr., of Ottawa, resigned.

The next meeting of the Mississippi Valley Medical Association will be held at Hot Springs, Arkansas, November 6, 7 and 8, under the presidency of Dr. J. H. Carstens, of Detroit, Mich. The annual addresses will be delivered by Dr. Frank Parsons Norbury, Jacksonville, Ill., in Medicine, and by Dr. Florus F. Lawrence, of Columbus, Ohio, in Surgery.

Dr. Norbury has chosen for the subject of his address, "Clinical Psychology," and Dr. Lawrence will discuss in his address, "Surgical Principles and Theories." In addition to these addresses there will be the annual address of the President, Dr. Carstens.

Communications regarding papers should be addressed to the Secretary, Dr. Henry E. Tuley, 111 W. Kentucky Street, Louisville, Ky.

Elaborate arrangements have been made by the local profession of Hot Springs to entertain the visiting doctors and their wives, the meeting being held at one of the largest hotels, which will be specially opened in advance of the season to accommodate the Association. A cordial invitation is extended to every physician in the Valley to attend this meeting, for which a large number of interesting and valuable papers have been promised.

The British Association for the Advancement of Science decided at the meeting held in York, England, early in August, to hold the next meeting in Winnipeg, in 1909.

The American Orthopedic Association.

The annual meeting of this association was held in Toronto, August 20th to 23rd, under the presidency of Dr. B. E. McKenzie, of this city. There were present 40 members, all of whom attended the sessions of the British Medical Association after adjournment.

Will Rebuild.

The trustees of the College of Physicians and Surgeons of San Francisco are completing plans to rebuild a greater medical college than the one that was destroyed by the recent fire. Temporary quarters have been secured for lecturing purposes. Clinics will be established and the City and County Clinics and other hospital clinics will continue as before. The college will open on the usual date, September 17th, 1906.—*Pacific Med. Jour.*

Medical Colleges Move.

The Medical Department of the University of California has moved to Berkeley for the first and second years students. The third and fourth years' work will be done in San Francisco as heretofore.—*Pacific Med. Jour.*

A Toronto Souvenir Publication.

Apropos of the recent Toronto meeting of the British Medical Association there has been issued a sumptuous publication entitled "Handbook and Souvenir of Canada." It is a magnificent specimen of the printer's art, and it is an exceedingly valuable repository of varied information concerning the great country that adjoins ours on the north. The text has been prepared in a delightful spirit, and it is a pleasure to read it.—*N. Y. Med. J.*

Personals.

Dr. F. G. Finley, of Montreal, was seriously injured July 23rd, as a result of an accident in which his carriage was overturned by a trolley car.

Dr. G. Reid Simpson has commenced practice at 82 College Street, Toronto, and will devote himself to diseases of the eye, ear, nose and throat.

Dr. Percy Goldsmith has removed from Belleville to 84 Carlton Street, Toronto, where he is continuing his practice in connection with diseases of the nose, throat and ear.

Dr. W. H. Harvey, a graduate of the University of Toronto, has been successful in securing the British Medical Association scholarship in research. He is at present taking a special course at Cambridge University, Eng.

Dr. Geo. A. Peters returned to Toronto after a three months' vacation spent in England, Aug. 29th, and resumed his regular consultation and operative work, Sept. 1st. He is in excellent health and spirits and looks quite "fit" in all respects.

Mr. C. D. Hamilton, a student in medicine at the University of Toronto, son of Dr. C. J. Hamilton, of Cornwall, met with a painful accident on August 2nd. While boating on Smooth Water Lake, he raised his revolver to shoot at a loon, but the weapon being discharged prematurely, the bullet passed through his thigh. He was conveyed to North Bay, and is now reported to be recovering.

Obituary.

DR. J. J. ELLIOTT, M.D.

Dr. J. J. Elliott, 263 Victoria Street, Toronto, died in the Toronto General Hospital, July 27th, aged 31. He received his medical education in Trinity Medical College, and received the degree of M.D. from Trinity University in 1896. After spending one year on the Intern Staff of the T. G. H. he commenced practice in this city. After a struggle of a few years he built up a good practice, and was much beloved by his patients and intimate friends. His illness lasted about six months, the cause of death being cancer of the stomach.

GEO. J. CAMPBELL., M.D.

Dr. Campbell, of Halifax, only son of Dr. D. A. Campbell, and nephew of Dr. Geo. M. Campbell, both also of Halifax, N.S., died July 19th after a short illness from pneumonia. One of the sad features connected with his untimely death is the fact that he was on his wedding trip when he contracted the disease.

A. K. McLEAN, M.D.

Dr. McLean, of Chicago, died at Battleford, Sask., July 29th, of dysentery. He was a native of Ontario and graduated from the University of Toronto in 1897. After graduating he went immediately to Chicago, where he was successful in building up a good practice in diseases of the eye, ear, nose and throat.

The only son of Dr. McNaughton, of the staff of the London Asylum for Insane, died July 24th, of tetanus.

Dr. J. W. Chisholm, of Halifax, N.S., was drowned in Big Glace Bay, July 23rd. He was swimming out with the tide, and in trying to return became exhausted and sank.

Book Reviews.

Progressive Medicine, Vol. VIII, No. 2. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. HALL and H. R. M. LANDIS, June 1st, 1906. Lea Bros. & Co., Philadelphia and New York.

The contents of this volume are: Hernia, by Wm. R. Coley; Surgery of Abdomen, by Edw. M. Foote; Gynæcology, by J. G. Clark; Diseases of Blood, Spleen, etc., by A. Stengel; Ophthalmology, by Edw. Jackson.

Progressive Medicine is one of the best resumés published, and a useful reference work, even when many years old. This volume keeps up its past record of efficiency.

The Prophylaxis and Treatment of Internal Diseases; designed for the use of practitioners and of advanced students of medicine. By F. FORCHHEIMER, M.D., Professor of Theory and Practice of Medicine and Clinical Medicine, Medical College of Ohio, Dept. of Medicine of University of Cincinnati; Physician to the Good Samaritan; Member of the Association of American Physicians, the American Pediatric Society, etc. New York and London: D. Appleton & Co.

This eminently practical and scientific work is the only book of its kind in America. Dr. Forchheimer tries to embody in it the patient observations of a lifetime, and arrange them in such a way as to be readily useful to a busy practitioner. This volume has, we feel sure, a prosperous future, for it is a companion to the works on the practice of medicine, where treatment usually receives but scant courtesy.

Elementary Manual of Regional Topographical Dermatology. By R. SAOURAUD, Director of the City of Paris Dermatological Laboratory St. Louis Hospital. English translation by C. F. MARSHALL, late Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars, London, with 231 illustrations in the text. New York: Rebman Company, 1123 Broadway. London: Rebman Limited, 123 Shaftesbury Ave. Toronto: C. E. Wingate, 2 Richmond St. East.

Atlas of Typical Operations in Surgery. By DR. PH. BOCKENHEIMER and DR. FRITZ FROUSE. Sixty illustrations from water colors by FRANZ FROUSE, Berlin. Adapted English Version by J. HOWELL EVANS, M.A., M.B. M.Ch., Oxon., F.R.C.S., England. Demonstrator of Operative Surgery at St. George's Hospital. Late Senior Demonstrator of Human Anatomy at St. George's Hospital, London. Assistant Surgeon to the Cancer Hospital, London. Surgical Registrar Chelsea Hospital for Women, London. New York: Rebman Company, 1123 Broadway. London: Rebman Limited, 129 Shaftesbury Ave. Toronto: C. E. Wingate, 2 Richmond St. East.

The Atlas is an English translation from the original German, with most elaborate and accurate illustrations. Twenty-nine typical operations are tersely and minutely described. The technique is thoroughly gone into and an operator should be able to follow in complete detail any of the operations described. The instruments that are required are named and illustrated, which is a great help, and prevents one when operating in private, from forgetting some essential instrument. The anatomical relations are exactly and carefully depicted in colors, and those very true to nature. The descriptions, for instance, of

hernotomy with the accompanying illustrations, is like a demonstration on the cadaver: there are fine plates to illustrate the different steps of the operation. Each of the other operations is as accurately described. The letter press is clear, bold type on excellent paper, makes it pleasing to the eye. The publishers have spared no expense in reproducing the work with the accuracy of the original. We feel confident that the volume will fill a want that is often experienced by operators.

Saunders's New Books

Messrs. W. B. Saunders Company announce for publication in the early fall the following excellent and practical works:—

Keen's Surgery: Its Principles and Practice (Volume I.).

Sobotta and McMurrich's Human Anatomy (Volume III.).

Webster's Text-book of Gynæcology.

Hill's Histology and Organography.

McConnell's Pathology.

Morrow's Immediate Care of the Injured.

Stevenson's Photocopy (Retinoscopy and Skiascopy).

Preiswerk and Warren's Atlas of Dentistry.

Goepf's State Board Questions and Answers.

Lusk's Elements of Nutrition.

The most notable announcement is the new work on Surgery, edited by Dr. W. W. Keen, complete in five octavo volumes, and containing over 1,500 original illustrations. The entire work is written by the leaders of modern surgery—men whose names are inseparably associated with the subjects upon which they have written. Without question, Keen's Surgery will represent the best surgical practice of to-day.

Handbook of Electricity in Medicine. By DR. W. H. GUILLERMINOT (Paris), translated by W. DEANE BUTCHER, M.R.C.S., Surgeon to the London Skin Hospital; with eight plates in colors and seventy-nine illustrations. New York: Rebman Company, 1123 Broadway. London: Rebman Limited, 129 Shaftesbury Avenue. Toronto: C. E. Wingate, 2 Richmond St. East. 1906.

A new book on the subject of electricity in medicine is made necessary every year or so by reason of the rapid advances made in the science, both as regards the discovery of new fields as well as in the exact interpretation of well-known phenomena.

The first half of this very acceptable book is given up to the theory of electricity, and is fairly tedious, but one is well repaid for the time spent by a more thorough understanding of the practical application of electricity in medicine and surgery found in the second half. The Röntgen, Finsen light, continuous current, etc., are discussed in an exact way that leaves nothing to be desired; the section on skin diseases, including radiotherapy in skin diseases, is of especial interest.

It is a volume of 560 pages in good type and with excellent plates.

Selections.

Treatment of Tuberculosis with Tubercul.

In the treatment of tuberculosis, Hermann Frey states that he has had very good results with "tuberculol," a preparation made directly from tubercle bacilli. The tuberculol is preserved with phenol, and forms a clear, aqueous liquid of such strength that 1 Cc. will kill a healthy guinea-pig weighing 250 Gm. The necessary amount to kill a guinea-pig of 250 Gm. is termed 1 d. l. (dosis letalis), and this amount, together with other dilutions in the decimal system (0.1 d. l.; 0.01 d. l., etc.) are put up in sealed vials. The initial dose must be very small (1-10,000 to 5-10,000 d. l.). The injections are continued every day until a slight reaction follows. After eight to ten injections, the strength of the solution has generally been increased ten times. The susceptibility varies considerably, and is by no means absolutely proportional to the severity of the process in the lungs. A local reaction without general symptoms, such as fever, is a very favorable sign, as such cases are frequently cured. As soon as a reaction is seen, the last dose is repeated, and if no tolerance is established after a second repetition, a solution ten times weaker is employed. With the appearance of a reaction, the injections are no longer given every day, but after intermissions varying from one to two to eight days.

Tuberculol is not only much stronger than most tuberculin preparations, but, if given carefully, will rarely disappoint. It possesses the advantage of being uniform in strength and very concentrated, so that only small amounts of fluid need be injected. The treatment results in the formation of an area of hyperemia and the serous transudation about the foci, and in the production of anti-bodies in the system. Great care should be exercised in injecting cases already far advanced in the disease. Intercurrent, febrile conditions must be regarded as a contraindication. Occasionally the sputum becomes slightly bloody during the treatment, but this need not alarm. The dose should here be increased more carefully. Even in mixed infections with streptococci, good results were frequently observed.—*Wien klin. Rundschau.*

Therapeutic Action of the Iodides.

James Burnet read a paper on the therapeutic action of the iodides, showing that they were alteratives which influenced metabolism and secretion, at a recent meeting of the Therapeutic Society, London. He said they had long been used against syphilis and scrofula, and more recently for gout, rheumatism, aneu-

rism, and arterioclerosis. They were formerly supposed to act by dilating arterioles and diminishing the blood pressure, but they had no effect on the blood pressure or pulse, though they promoted the coagulation of the blood.

He found iodipin, or iodized sesame oil, most effectual injected under the skin, as this did not cause any gastric disturbance, and the iodine was slowly set free by oxidation. It relieved arterioclerosis by diminishing the uric acid dissolved in the blood and thus relaxed arterioles and relieved aneurysm, if syphilitic, by removing pathological effusion and counteracting the poison. In angina pectoris it must be given in large doses, 60 grn. daily for months. It was most useful in chronic pulmonary diseases, especially fibrous and emphysema, relieving dyspnea and liquefying the bronchial secretion, and it was best given in doses of 15 grn. at bedtime. In bronchial asthma doses of 10 grn. every two hours were very useful either by relieving spasms or freeing the blood from uric acid. In syphilis it was most useful from its anti-toxic powers and its eliminative action, particularly in affections of the nervous system and headache. In locomotor ataxia 120 grn. had been given daily with the best results. It had also been used with success in cases of intermittent fever, puerperal fever and erysipelas.

In chronic rheumatism, neuralgia, lumbago and sciatica, potassium iodide was often useful, probably by diminishing the uric acid dissolved in the blood; it was best combined with salicylic acid, which eliminated this acid. In cases of effusion, especially from interstitial nephritis or cirrhosis, iodides often were of service. In lead or mercurial poisoning they removed the metal from the tissues and caused its excretion. In simple goitre they were of great service if used early, but not in exophthalmic goitre. The iodide of sodium was less depressing than that of potassium.—*The Lancet*.

Pancreatitis and Biliary Lithiasis

Quénu and Duval have operated on four patients with pancreatitis occurring in the course of a gallstone affection. They have been able to find reports of other cases, bringing the total to 118. All varieties of pancreatitis have been encountered, and Kehr remarked recently that the oftener he operated the more frequently he found lesions in the pancreas. The pancreatitis was chronic in about half the cases on record, and almost always localized in the head of the gland. When the gallstone affection is accompanied by pancreatitis the biliary attack is not typical; there are always certain abnormal details. The location and the nature of the pain are a little different. It may be referred to

the stomach or to the region between the sternum and the umbilicus, and the greatest tenderness may be in the centre of the epigastrium. The pain may radiate into the back, between the shoulders or toward the left shoulder. Vomiting is more frequent than in simple lithiasis. In one personal case the vomiting was almost uncontrollable. The syndrome is that of pancreatic colic superposed on the gallstone colic. In only ten cases was a tumor to be palpated, and in some it was supposed to be an invagination. In two cases the tumor was palpated under the false ribs on the left. Functional tests of the pancreas are more instructive than the other findings. The urine or the feces, or both, can be examined. In 21 of the cases of acute pancreatitis an operation was undertaken, with 13 deaths. None of the five patients with hemorrhagic pancreatitis operated on survived. The cases with suppuration or necrosis terminated fatally in 45 per cent. All but eight recovered in the 62 patients with chronic pancreatitis treated by operation and ample drainage. The particulars of the total material are summarized and the four personal cases are described in detail.—*J.A.M.A.*

Treatment of Abortion.

H. J. Boldt, of New York, considers the induction of an abortion justifiable in pernicious hyperemesis, in some cases of chorea, in certain forms of convulsive seizures, nephritis preceding or manifesting itself early in pregnancy, and in certain cases of contracted *pe. vis.* If the well-known bougie method does not bring about the desired result in from twenty-four to forty-eight hours, it may be supplanted with a tampon of gauze carried into the uterine interior.

The treatment of abortion he considers under four heads: (1) Imminent abortion may be prevented by absolute rest in bed and the use of drugs like codeine and *viburnum prunifolium*; (2) progressing abortion, and (3) incomplete abortion may be assisted to a spontaneous termination by a hot vaginal antiseptic douche and vaginal gauze packing. An oxytocic should be administered internally. If the result is not satisfactory, after twenty-four hours the partially dilated cervical canal should be packed with gauze, and the vagina below tightly filled with the same material. Uterine contraction will thus be usually incited and everything expelled. If too much bleeding is going on, the uterus may be emptied with the finger or placenta forceps, and ergot administered, two or three doses usually sufficing. The author prefers to give the expectant plan of treatment the widest possible range. In cases of post-abortive persistent bleeding, digital exploration of the uterine cavity (if necessary with the

aid of a post-cervical incision) should be made. In cases presenting evidence of infection the uterus should be emptied as soon as possible whether the cervix is dilated or contracted. A branched steel dilator may be used for dilating the cervix and then a broad dull curette. The author is opposed to intra-uterine tamponade. Bad cases of sepsis may justify panhysterectomy. (4) Complete abortion requires only rest in bed.

In patients in whom the uterus was not markedly enlarged and the cervix firmly contracted, the author saw the most marked benefit from the administration of stypticin in 3 grn. doses, given in capsules at intervals of three hours. The powder should be ordered to be put in a dry form into the capsules. Should the bleeding not cease from the administration of one of the remedies mentioned, curetting is indicated, with subsequent irrigation with a 1 per cent. carbolic acid solution.—*Jour. A. M. A.*

Treatment of Erysipelas.

There being two forms of erysipelas, states I. H. Hunter, of Sopchoppy, Fla., the treatment must be varied to suit the case. This disease, when neglected, and when affecting surfaces over important organs, is a very serious matter. In the cutaneous form, the author bathes the parts in a hot bichloride solution, and then applies the following:—

Ichthyol. ℥ ij
 Petrolati. ℥ i

Apply locally.

If the patient is weak and old, he gives strychnine, 1-60 grn. doses, three or four times daily, keeping the bowels open thoroughly. In the phlegmonous form he uses the following:—

Ichthyol. ℥ ii
 Salol. ℥ i
 Camphoræ. ℥ i
 Menthol. gr. xx
 Petrolati, qs. ad. ℥ ij

Apply on surface hot as can be borne.

Internally the author uses the syrup of iodide of iron in big doses, with plenty of stimulants, such as good rye whisky, and sees to it that the bowels and kidneys are acting freely.—*Med. Mirror.*

Suppression of urine in infants is extremely rare, and in any case in which the child is unable to pass its urine it is far more likely that there is some congenital source of obstruction. The existence of this should be determined by the prompt introduction of a soft rubber catheter.—*International Journal of Surgery.*