Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☐ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☐ Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

THE

MONTREAL MEDICAL JOURNAL.

VOL. XXIII. FEBRUARY, 1895. No. 8.

Original Communications.

TEACHING AND THINKING.*

THE TWO FUNCTIONS OF A MEDICAL SCHOOL.

Many things have been urged against our nineteenth century civilization—that political enfranchisement only ends in anarchy, that the widespread unrest in matters spiritual leads only to unbelief, and that the best commentary on our boasted enlightenment is the picture of Europe in arms and the nations everywhere gnarring at each other's heels. Of the practical progress in one direction, however, there can be no doubt; no one can dispute, viz., the enormous increase in the comfort of each individual life. Collectively the human race, or portions of it at any rate, may have in the past enjoyed periods of greater repose, and longer intervals of freedom from strife and anxiety; but the day has never been when the unit has been of such value, when the man, and the man alone, has been so much the measure, when the individual as a living organism has seemed so sacred, when the obligations to regard his rights have seemed so imperative. But these changes are as naught in comparison with the remarkable increase in his physical well-being. The bitter cry of Isaiah that with the multiplication of the nations their joys had not been increased, still

* Remarks made at the opening of the new building of the Medical Faculty McGill College. by William Osler, M.D., F.R.C.P., Lond., Professor of Medicine Johns Hopkins University, Baltimore.

echoes in our ears. The sorrows and troubles of men, it is true, may not have been materially diminished, but bodily pain and suffering, though not abolished, have been assuaged as never before, and the share of each in the *Weltschmerz* has been enormously lessened.

Sorrows and griefs are companions sure sooner or later to join us on our pilgrimage, and we have become perhaps more sensitive to them, and perhaps less amenable to the old time remedies of the physicians of the soul; but the pains and woes of the body, to which we doctors minister, are decreasing at an extraordinary rate, and in a way that makes one fairly gasp in hopeful anticipation.

In his *Grammar of Assent*, in a notable passage on suffering, John Henry Newman asks, "Who can weigh and measure the aggregate of pain which this one generation has endured, and will endure, from birth to death? Then add to this all the pain which has fallen and will fall upon our race through centuries past and to come." But take the other view of it—think of the Nemesis which has overtaken pain during the past fifty years! Anæsthetics and antiseptic surgery have almost manacled the demon, and since their introduction the aggregate of pain which has been prevented far outweighs in civilized communities that which has been suffered. Even the curse of travail has been lifted from the soul of woman.

The greatest art is in the concealment of art, and I may say that we of the medical profession excel in this respect. You of the public who hear me go about the duties of the day profoundly indifferent to the facts I have just mentioned. You do not know, many of you do not care, that for the cross-legged Juno who presided over the arrival of your grandparents, there now sits a benign and straight-legged goddess. You take it for granted that if a shoulder is dislocated there is chloroform and a delicious Nepenthe instead of the agony of the pulleys and paraphernalia of fifty years ago. You accept with a selfish complacency, as if you were yourselves to be thanked for it, that the arrows

of destruction fly not so thickly, and that the pestilence now rarely walketh in the darkness; still less do you realize that you may now pray the prayer of Hezekiah with a reasonable prospect of its fulfillment, since modern science has made to almost everyone of you the present of a few years.

I say you do not know these things. You hear of them, and the more intelligent among you perhaps ponder them in your hearts, but they are among the things which you take for granted, like the sunshine, and the flowers, and the glorious heavens.

'Tis no idle challenge which we physicians throw out to the world when we claim that our mission is of the highest and of the noblest kind, not alone in curing disease but in educating the people in the laws of health, and in preventing the spread of plagues and pestilences; nor can it be gainsaid that of late years our record as a body has been more encouraging in its practical results than those of the other learned professions. Not that we all live up to the highest ideals, far from it—we are only men. But we have ideals, which means much, and they are realizable, which means more. Of course there are Gehazis among us who serve for shekels, whose ears hear only the lowing of the oxen and the jingling of the guineas, but these are exceptions, and the rank and file labour earnestly for your good, and self-sacrificing devotion to your interests animates our best work.

The exercises in which we are to-day engaged form an incident in this beneficent work which is in progress everywhere; an incident which will enable me to dwell upon certain aspects of the university as a factor in the promotion of the physical well-being of the race.

A great university has a dual function, to teach and to think. The educational aspects at first absorb all its energies, and in the equipment of the various departments and in providing salaries, it finds itself hard pressed to fulfil even the first of these duties. The Dean has told us

the story of the progress of the medical school of this institution, which illustrates the struggles and difficulties, the worries and vexations attendant upon the effort to place it in the first rank as a teaching body. I know them well, since I was in the thick of them for ten years, and see to-day the realization of many of my day-dreams. Indeed in my wildest flights I never thought to see such a splendid group of buildings as I have just inspected. We were modest in those days, and I remember when Dr. Howard showed me in great confidence the letter of the Chancellor, in which he conveyed his first generous bequest to the Faculty, it seemed so great t' at in my joy I was almost ready to sing my *Nunc dimittis*. The great advances, here at the Montreal General Hospital and at the Royal Victoria (both of which institutions form most essential parts of the medical schools of this city) mean increased teaching facilities, and of necessity better equipped graduates, better equipped doctors! Here is the kernel of the whole matter, and it is for this that we ask the aid necessary to build large laboratories and larger hospitals in which the student may learn the science and art of medicine. Chemistry, anatomy and physiology give that perspective which enables him to place man and his diseases in their proper position in the scheme of life, and afford at the same time that essential basis upon which alone a trustworthy experience may be built. Each one of these is a science in itself, complicated and difficult, demanding much time and labour for its acquisition, so that in the few years which are given to their study the student can only master the principles and certain of the facts upon which they are founded. Only so far as they bear upon a due understanding of the phenomena of disease do these subjects form part of the medical curriculum, and for us they are but means—essential means it is true—to this end. A man cannot become a competent surgeon without a full knowledge of human anatomy and physiology, and the physician without physiology and chemistry flounders along in an aimless fashion, never able to gain any accurate conception

of disease, practising a sort of pop-gun pharmacy, hitting now the malady and again the patient, he himself not knowing which.

The primary function of this department of the university is to teach men disease, what it is, its manifestations, how it may be prevented, and how it may be cured; and to learn these things the four hundred young men who sit on these benches have come from all parts of the land. But it is no light responsibility which a faculty assumes in this matter. The task is not easy, being beset with countless difficulties, some inherent in the subject, others inherent in the men themselves, and not a few bound up with the "fool multitude" among which we doctors work.

The processes of disease are so complex that it is excessively difficult to search out the laws which control them, and although we have seen a complete revolution in our ideas, what has been accomplished by the new school of medicine is only an earnest of what the future has in store. The three great advances of the century have been a knowledge of the mode of controlling epidemic diseases, the introduction of anæsthetics, and the adoption of antiseptic methods in surgery. Beside them all others sink into insignificance, as these three contribute so enormously to the personal comfort of the individual. The study of the causes of so-called infectious disorders has led directly to the discovery of the methods for their control, for example, such a scourge as typhoid fever becomes almost unknown in the presence of perfect drainage and an uncontaminated water supply. The outlook, too, for specific methods of treatment in these affections is most hopeful. The public must not be discouraged by a few, or even by many failures. The thinkers who are doing the work for you are on the right path, and it is no vain fancy that before the twentieth century is very old there may be effective vaccines against many of the contagious diseases.

But a shrewd old fellow remarked to me the other day, "Yes, many diseases are less frequent, others have disap-

peared, but new ones are always cropping up, and I notice that with it all there is not only no decrease, but a very great increase in the number of doctors."

The total abolition of the infectious group we cannot expect, and for many years to come there will remain hosts of bodily ills, even among preventable maladies, to occupy our labours; but there are two reasons which explain the relative numerical increase in the profession in spite of the great decrease in the number of certain diseases. The development of specialties has given employment to many extra men who now do much of the work of the old family practitioner, and again people employ doctors more frequently and so give occupation to many more than formerly.

It cannot be denied that we have learned more rapidly how to prevent than how to cure diseases, but with a definite outline of our ignorance we no longer live now in a fool's Paradise, and fondly imagine that in all cases we control the issues of life and death with our pills and potions. It took the profession many generations to learn that fevers ran their course, influenced very little, if at all, by drugs, and the £60 which old Dover complained were spent in medicine in a case of ordinary fever about the middle of the last century is now better expended on a trained nurse, with infinitely less risk, and with infinitely greater comfort to the patient. Of the difficulties inherent in the art not one is so serious as this which relates to the cure of disease by drugs. There is so much uncertainty and discord even among the best authorities (upon non-essentials it is true) that I always feel the force of a well-known stanza in "Rabbi Ben Ezra," which, however, I could not quote in the tender ears of students.

One of the chief reasons for this uncertainty is the increasing variability in the manifestations of any one disease. As no two faces, so no two cases are alike in all respects, and unfortunately it is not only the disease itself which is so varied, but the subjects themselves have peculiarities which modify its action.

With the diminished reliance upon drugs, there has been a return with profit to the older measures of diet, exercise, baths, and frictions, the remedies with which the Bythenian Asclepiades doctored the Romans so successfully in the first century. Though used less frequently, medicines are now given with infinitely greater skill; we know better their indications and contradictions, and we may safely say (reversing the proportion of fifty years ago) that for one damaged by dosing, one hundred are saved.

Many of the difficulties which surround the subject relate to the men who practice the art. The commonest as well as the saddest mistake is to mistake one's profession, and this we doctors do often enough, some of us without knowing it. There are men who have never had the preliminary education which would enable them to grasp the fundamental truths of the science on which medicine is based. Others have poor teachers, and never receive that bent of mind which is the all important factor in education; others again fall early into the error of thinking that they know it all, and benefiting neither by their mistakes or their successes, miss the very essence of all experience, and die bigger fools, if possible, than when they started. There are only two sorts of doctors; those who practice with their brains, and those who practice with their tongues. The studious, hard working man who wishes to know his profession thoroughly, who lives in the hospitals and dispensaries, and who strives to obtain a wide and philosophical conception of disease and its processes, often has a hard struggle, and it may take years of waiting before he becomes successful; but such form the bulwarks of our ranks, and outweigh scores of the voluble Casios who talk themselves into, and often out of, practice.

Now of the difficulties bound up with the "fool multitude" in which we doctors work, I hesitate to speak in a mixed audience. Common sense in matters medical is rare, and is usually in inverse ratio to the degree of education. I suppose as a body, clergymen are better educated

than any other, yet they are notorious supporters of all the nostrums and humbuggery with which the daily and religious papers abound, and I find that the further away they have wandered from the decrees of the Council of Trent, the more apt are they to be steeped in thaumaturgic and Galenical superstition. But know also, man has an inborn craving for medicine. Generations of heroic dosing have given his tissues such a thirst that even young infants in the higher circles of society have been known to cry for certain drugs. As I once before remarked, the desire to take medicine is the one feature which distinguishes man, the animal, from his fellow creatures. It is really one of the most serious difficulties with which we have to contend. Even in minor ailments, which would yield to dieting or to simple home remedies, the doctor's visit is not thought to be complete without the prescription. And now that the pharmacists have cloaked even the most nauseous remedies, the temptation is to use medicine on every occasion, and I fear we may return to that state of polypharmacy, the emancipation from which has been the sole gift of Hahnemann and his followers to the race. As the public becomes more enlightened, and as we get more sense, dosing will be recognized as a very minor function in the practice of medicine in comparison with the old measures of Asclepiades.

After all, these difficulties—in the subject itself, in us, and in you—are lessening gradually, and we have the consolation of knowing that year by year the total amount of unnecessary suffering is decreasing at a rapid rate.

In teaching men what disease is, how it may be prevented, and how it may be cured, a University is fulfilling one of its very noblest functions. The wise instruction and the splendid example of such men as Holmes, Sutherland, Campbell, Howard, Ross, Macdonnell, and others have carried comfort into thousands of homes throughout this land. The benefits derived from the increased facilities for the teaching of medicine which have come with the great changes made here and at the hospitals during the past

few years, will not be confined to the citizens of this town, but will be widely diffused and felt in every locality to which the graduates of this school may go ; and every gift which promotes higher medical education, and which enables the medical faculties throughout the country to turn out better doctors, means fewer mistakes in diagnosis, greater skill in dealing with emergencies, and the saving of pain and anxiety to countless sufferers and their friends.

The physician needs a clear head and a kind heart ; his work is arduous and complex, requiring the exercise of the very highest faculties of the mind, while constantly appealing to the emotions and finer feelings. At no time has his influence been more potent, at no time has he been so powerful a factor for good, and as it is one of the highest possible duties of a great University to fit men for this calling, so it will be your highest mission, students of medicine, to carry on the never-ending warfare against disease and death, better equipped, abler men than your predecessors, but animated with their spirit and sustained by their hopes, " for the hope of every creature is the banner that we bear."

The other function of a University is to think. Teaching current knowledge in all departments, teaching the steps by which the *status præsens* has been reached, and teaching how to teach, form the routine work of the various college faculties, which may be done in a perfunctory manner by men who have never gone deeply enough into their subjects to know that really thinking about them is in any way important. What I mean by the thinking function of a University, is that duty which the professional corps owes to enlarge the boundaries of human knowledge. Work of this sort makes a University great, and alone enables it to exercise a wide influence on the minds of men.

We stand to-day at a critical point in the history of this faculty. The equipment for teaching, to supply which has taken years of hard struggle, is approaching completion, and with the co-operation of the General and the Royal

Victoria Hospitals students can obtain in all branches a thorough training. We have now reached a position in which the higher university work may at any rate be discussed, and towards it progress in the future must trend. It may seem to be discouraging, after so much has been done and so much has been so generously given, to say that there remains a most important function to foster and sustain, but this aspect of the question must be considered when a school has reached a certain stage of development. In a progressive institution the changes come slowly, the pace may not be perceived by those most concerned, except on such occasions as the present, which serve as landmarks in its evolution. The men and methods of the old Coté street school were better than those with which the faculty started; we and our ways at the new building on University street were better than those of Coté street; and now you of the present faculty teach and work much better than we did ten years ago. Everywhere the old order changeth, and happy those who can change with it. Too many, like the defeated gods in Keats' Hyperion, unable to receive the balm of the truth, resent the wise words of Oceanus (which I quoted here with very different feelings some eighteen years ago in an introductory lecture):

> "Still on our heels a fresh perfection treads,
> * * * * * born of us,
> Fated to excel us."

Now the fresh perfection which will tread on our heels will come with the opportunities for higher university work. Let me indicate in a few words its scope and aims. Teachers who teach current knowledge are not necessarily investigators; many have not had the needful training; others have not the needful time. The very best instructor for students may have no conception of the higher lines of work in his branch, and contrariwise, how many brilliant investigators have been wretched teachers? In a school which has reached this stage and wishes to do thinking as well as teaching, men must be selected who are not only thoroughly *au courant* with the best work in their depart-

ment the world over, but who also have ideas, with ambition and energy to put them into force,—men who can add, each one in his sphere, to the store of the world's knowledge. Men of this stamp alone confer greatness upon a university. They should be sought for far and wide; an institution which wraps itself in Strabo's cloak and does not look beyond the college gates in selecting professors may get good teachers, but rarely good thinkers.

One of the chief difficulties in the way of advanced work is the stress of routine class and laboratory duties, which often saps the energies of men capable of higher things. There are two essential provisions, first, to give the professors plenty of assistance, so that they will not be worn out with teaching; and, second, to give encouragement to graduates and others to carry on researches under their direction. With a system of fellowships and research scholarships a university may have a body of able young men, who on the outposts of knowledge are exploring, surveying, defining and correcting. Their work is the outward and visible sign that a university is thinking. Surrounded by a group of bright young minds, well trained in advanced methods, not only is the professor himself stimulated to do his best work, but he has to keep far afield and to know what is stirring in every part of his own domain.

With the wise co-operation of the university and the hospital authorities Montreal should become the Edinburgh of America, a great medical centre to which men will flock for sound learning, whose laboratories will attract the ablest students, and whose teaching will go out into all lands, universally recognized as of the highest and of the best type.

Nowhere is the outlook more encouraging than at McGill. What a guarantee for the future does the progress of the past decade afford! No city on this continent has so liberally endowed higher education. There remains now to foster that undefinable something which, for want

of a better term, we call the university spirit, a something which a rich institution may not have, and with which a poor one may be saturated, a something which is associated with men and not with money, which cannot be purchased in the market or grown to order, but which comes insensibly with loyal devotion to duty and to high ideals, and without which *Nehushtan* is written on its portals.

THE DRUGS USED IN THE THIRD STAGE OF LABOUR.*

By HERBERT L. REDDY, M.D.,

Professor of Obstetrics, University of Bishop's College.

The part assigned to me in to-night's discussion is the use of drugs, or rather the drugs used, in the third stage of labour.

I find that it is impossible to limit myself to the third stage in some cases; as, for example, chloroform, which is so commonly used in the second stage, and so frequently produces unpleasant effects in the third. Therefore, I hope you will pardon me if I take up your time, to some extent, in considering these drugs outside the stage under discussion.

I have endeavored to give the opinions of standard authorities, and have also taken the trouble to write to a number of the leading obstetricians in the United States, more particularly with regard to the use of ergot and chloroform, and have received replies to all of my enquiries. This, I think, will perhaps make what I have to say slightly more interesting.

The time allotted to me is, I am sorry to say, entirely too short to give more than a short resume of the subject. I, therefore, have only taken up for consideration the most commonly used drugs.

ANÆSTHETICS.

Firstly, what is the indication for them?

Relief of pain;
Relaxation of parts;
Prevention of untimely movements.

In looking up the matter we find Donhöff, in the Archives for Gynæcology, shows the influence of chloroform upon

* Read before the Medico-Chirurgical Society, Nov. 30th, 1894.

the course of normal labor by the tachadynamometer to be as follows:

The administration of chloroform, even in diminutive doses, exercises a retarding influence upon the progress of labour. Time prevents us taking up his experiments fully.

Playfair, the English standard authority, says:

"The tendency of the present day is to give too much anæsthetic during child-birth, and a common error is the administration of chloroform to an extent which materially interferes with uterine contractions, and predisposes to postpartum hæmorrhage. In considering anæsthesia in the third stage, or the effects produced in the third stage, the subject would not be complete without referring to its use in the earlier stage of labour. Generally speaking, we do not think of giving chloroform until the os is fully dilated, the head descending, and the pains becoming propulsive. It has often been administered earlier, in order to aid in the dilatation of a rigid cervix, and while it may succeed well, chloral answers the purpose better. There is one cardinal rule to be observed: in giving chloroform during the propulsive stage, it should be administered intermittently and not continuously. When the pain comes on a few drops may be scattered over a Skinner's inhaler. During the acme of the pain the patient inhales it freely, and at once experiences a sense of great relief. As soon as the pain dies away the inhaler should be removed. Indeed, if properly given, consciousness should not be entirely abolished, and the patient between the pains should be able to speak and understand what is said to her, or, in other words, the chloroform should be administered to the obstetric and not to the surgical or profound insensibility except, perhaps, just at the moment the head is passing over the perineum. The effect of the chloroform on the pains must be carefully watched. If they become materially lessened in force and frequency, it is necessary to stop the inhalation for a short time, until the pains get stronger. This effect may be often completely and easily prevented

by using Dr. Sanson's mixture, one-third absolute alcohol and two-thirds chloroform, this diminishing the tendency to undue relaxation. Bearing in mind the tendency of chloroform to produce uterine relaxation, more than ordinary precautions should always be taken against postpartum hæmorrhage, in all cases in which it has freely been administered. In cases of operative midwifery, it is usually given to the extent of complete anæsthesia, and in all such cases it should be given by another medical man, not by the operator."

Winkel believes that chloroform should not be used in all obstetrical operations, unless they are of a difficult nature, and believes the best method even here in order to avoid difficulties is to carry the anæsthesia only so far that the patient feels the pains at the completion of the operation and awakens with the crying of the child.

Dr. E. Montgomory, Philadelphia, makes it a rule to give an anæsthetic to every patient during the second stage of labour. The anæsthetic he uses is the bromide of methyl, which has the advantage over ether and chloroform that it acts quickly and its effects pass off quickly, thus producing less influence than either ether or chloroform. It is not necessary that the patient should be brought so profoundly under its influence as is necessary under chloroform. He says, "I have never found it to have any unpleasant influence upon the third stage of labour, as is claimed to arise from the use of chloroform."

Dr. Parvin uses anæsthetics possibly in one-third of his cases, usually ether. He finds that it blunts the sharp edge of the pain, the patient bears down better, and it lessens the resistance of the soft parts. He believes that it neither induces hæmorrhage or delays uterine contraction if given in moderate quantities, so as only to produce obstetrical, not surgical, anæsthesia. For prolonged operations he uses ether always.

Dr. H. J. Garriges, of New York, uses anæsthetics in every case in the second stage of labour, unless the patient

objects, generally chloroform. He considers that it is apt to invite want of contraction and hæmorrhage. He considers ether safer if the kidneys, lungs and brain are healthy.

Dr. Wm. Polk does not use anæsthetics if he can evade it, and then only at the close of labour, never in pathological cases. He considers, outside of the relief of pain, the effect is a bad one, as it both induces hæmorrhage and delays uterine contraction in the third stage.

Dr. E. H. Grandin as a rule uses an anæsthetic when the presenting part reaches the pelvic floor, always in primiparæ. He uses chloroform, except in cardiac cases, and then ether. He finds that it produces relaxation of uterine spasms and of spasm of the muscles and fascia of the pelvic diaphragm. "If the anæsthesia be prolonged," he says, "I am on the lookout for excessive hæmorrhage and delayed uterine contraction." He uses chloroform in prolonged operations when a careful anæsthetist gives it, otherwise he uses ether.

Dr. Reynolds uses anæsthetics in the second stage of labour when the contractions are good. He finds the action to be relaxation of the os and the muscles of the perineum, with diminution of the force of labour, in slow cases this latter being one of the disadvantages of the use of the drug. He says he generally carries ether to the point of unconsciousness so soon as he can control the chin per rectum in the belief that he can more often by this method save the perineum. He believes that the use of an anæsthetic in the second stage causes an increase in the relaxation of the uterus and consequent hæmorrhage. He has never had a fatal case of post-partum hæmorrhage. He uses ether entirely because the opinion of the community in which he lives is against the use of chloroform.

Dr. Clifton Edgar does not use anæsthetics as routine in the second stage of labour. When he does use an anæsthetic he uses the A. C. E. mixture, sometimes sulphuric ether. He finds that it relaxes a rigid cervix, often

rendering the subsequent pains more efficient. Chloroform, he finds, is likely to produce both hæmorrhage and delay in uterine contraction when used in excess. In prolonged operations he uses ether, and his chief objection to chloroform is that one not thoroughly familiar with its administration will abuse its use by giving too much.

Dr. Charles M. Green almost always uses anæsthetics in the second stage of labour and uses Squib's sulphuric ether. He find the effect produced to be a relaxation of the soft parts, better success in saving the perineum from laceration, both on account of relaxation and because he has complete control of the patient. Personally he has had no bad effects, but believes that long continued anæsthesia does predispose to uterine inertia and hæmorrhage. In prolonged operations he states that all the Boston men use ether to the exclusion of chloroform, his chief objection to chloroform being that it is more dangerous to administer.

Dr. E. P. Davis uses anæsthesia in nine cases out of ten, usually chloroform for normal cases and version, for all the other operations ether. He finds that it produces better uterine contraction by removing the cerebral inhibition from conscious suffering, partial relaxation of the uterus when pushed, facilitating manipulation. He believes that chloroform when properly used produces neither hæmorrhage nor delayed uterine contractions in the third stage.

It is generally agreed that the operator must always begin the anæsthesia if no skilled assistant is present. After anæsthesia has been begun the nurse may hold the inhaler, although the physician must himself pour on the fresh chloroform if needed. For the want of following this rule I have known of a fatal case happening. In chloroform narcosis the contra indications, are cases of anæmia in the dying, well-marked goitre, in myocarditis, in cases of dyspnœa or extreme collapse, heart disease, or placenta prævia.

To sum up, with regard to anæsthetics, in this country and the United States the majority of practitioners seem rather to favour its use, although in England and abroad they do not recommend its use to nearly the same extent, and almost every one of the authorities consulted agree that it undoubtedly predisposes to uterine inertia and consequent hæmorrhage in the third stage. This more particularly applies to chloroform, which is most commonly used. Anæsthetics are hardly ever used in the third stage, unless in cases of severe operative procedure.

Dr. J. C. Reeve, of Dayton, Ohio, one of the best authorities on chloroform in the United States and author of the chapter on the subject in the *American System of Obstetrics*, Vol. I, uses chloroform frequently whenever the pain is severe or the soft parts give slowly. He says he believes that it has an injurious effect likely to be marked in proportion to the length of time used and the depth of narcotism. He expects to watch a patient more closely after anæsthetics.

Dr. George L. Engelmann, of St. Louis, uses anæsthetics moderately in the second stage of labour, always chloroform, depending upon the sensitiveness and nervousness of the patient and relation of the pelvis to the head. He finds the effects vary with the case, pains more regular, powerful and efficient in many cases, especially in nervous women. He believes no ill effects arise in the third stage, unless overdone, and care is necessary.

Caseaux finds that chloroform is of service both in relieving pain and causing relaxation of the parts, but predisposes in the third stage to uterine inertia and p.p. hæmorrhage.

Such, I may say, is my personal experience both in private and hospital work. I consider towards the end of the second stage, where the pain is very severe, it is apt to cause inversion of polarity, thus delaying labour and consequently unnecessary suffering, therefore an anæsthetic should be given, and its use when the head is stretching the

perineum will very often save it from rupture. But to give it beyond the obstetrical degree and for long periods is not only unnecessary, but absolutely bad practice.

ERGOT.

We will next consider ergot, one of the most common drugs used in the third stage.

Playfair believes that it is thoroughly good practice to administer a full dose of the liquid extract of ergot in all cases after the placenta has been expelled to insure persistent contraction and to lessen the chance of blood clots being retained in utero. He prefers as a rule personally to give a subcutaneous injection of ergotine in cases where there is a history in previous labours of hæmorrhage after the birth of the child, when the presentation is so far advanced that we estimate that the labour will be concluded in from ten to twenty minutes, as we can hardly expect the drug to produce any effect in less time. In cases of postpartum hæmorrhage the dose may be repeated, but here the hypodermic use of ergotine offers the double advantage of acting with greater power and much more rapidly than the usual method of administration. It should therefore be always used in preference.

Chahbazain, of Paris, recommends an aqueous solution of ergotine the one two-hundredth of a grain in ten minums of water as acting more energetically.

Dr. Engelmann, of St. Louis, says in obstetric practice it does good service if given after the contents of the uterus have been expelled to stimulate contraction when labour is completed and as a safeguard, especially after the physician has left his patient.

Dr. J. C. Reeves, of Dayton, Ohio, does not use ergot as routine practice, but when he does give it it is only after the expulsion of the child, in doses of one fluid drachm. He finds that irregular contraction of the uterus is caused, imprisoning the placenta very frequently after its administration.

Dr. Norris, of Pennsylvania, recommends in every case the administering of one drachm of fluid extract of ergot in the treatment of the third stage.

Dr. H. Grandin, of New York, uses ergot as routine practice in obstetrics, after the uterus has been thoroughly emptied, and finds that its routine use prevents undue relaxation and appears to promote proper involution. He uses a half to one drachm of fluid extract of ergot for three days, and then twenty drops three times a day for a week.

Dr. Wm. M. Polk, of New York, does not use it as routine, but when he does give it is always after the second stage of labor, and he finds that it produces uterine contraction. He uses one drachm of the fluid extract.

Dr. Edward Reynolds, of Boston, uses ergot as routine practice, never before the delivery of the placenta, and finds that it hastens the occurrence of tonic contractions, and thus lessens the likelihood of postpartum hæmorrhage. He uses the fluid extract, Squibs, one drachm.

Porro recommends ergot in cases of hæmorrhage, or where hæmorrhage is likely to occur.

Dr. Marx, of New York, in large hospital experience, has in nearly every case given ergot by mouth, at or toward the end of the second stage of labor, and has never seen a bad result from its use, certainly never a case of accidental hæmorrhage. He finds that there is no better remedy to regulate the pains of labour than ergot. Possibly large doses of quinine, but this remedy does not increase the frequency of pains as much as it increases their vigour. It is impossible to wait for the administration of ergot until the uterus is absolutely empty, for then it would never be given, as there is always shreds of decidua and blood.

Dr. Nash, of Washington, does not approve of the administration of ergot after the placenta has been delivered, or that of promoting the process of involution by the daily display of ergot, digitalis and quinine, as is suggested in practice in some institutions.

Reynolds, in his work on midwifery, declares the efficiency of ergot in producing tonic retraction of the recently delivered uterus is undoubted, and since its use is productive of no possible harm it is the usual custom, and the author believes should be the habit of all obstetricians, to administer to the patient a teaspoonful of the extract immediately after the birth of the placenta. This is to be recommended as a routine procedure, because the action of ergot is too slow to render it of value if its administration is delayed until after the occurrence of hæmorrhage, unless it is given hypodermically, a procedure which it is wise to avoid, in view of the fact that the hypodermic use of ergot is not unfrequently followed by subcutaneous abscess. If it is so used it should be deeply injected into the substance of the thigh, as this method decidedly diminishes the risk of subsequent suppuration. The use of ergot by the mouth is occasionally followed by nausea, which is, however, rare, if no more than a drachm of the fluid extract is given in about two ounces of cold water.

Dr. Clifton Edgar does not use ergot as routine practice, but if given, always after the third stage. He finds it produces good uterine contractions, and possibly the prevention of after pains. He gives one drachm of fluid extract at a dose.

Dr. Charles M. Green, of Boston, uses ergot as routine practice, after the delivery of the placenta, never before, and finds that it promotes the contraction and retraction of the uterus and thus helps to prevent hæmorrhage. He generally uses a drachm of the fluid extract at a dose. He considers that grasping the fundus after the use of ergot causes a succession of rhythmical contractions and consequent retraction, which latter action permanently closes the uterine sinuses.

Dr. E. P. Davis, of Philadelphia, does not use ergot as routine practice, but only when the uterus fails to properly contract and remain contracted. He finds the effect produced to be that it promotes uterine contraction and fur-

thers involution, and when given in small doses after the third stage it increases blood pressure in the breast and furthers the secretion of milk. He uses the fluid extract in doses of from one drachm to ten minums.

Dr. Parvin, of Philadelphia, does not use ergot as routine practice in obstetrics. He occasionally gives it in the second stage of labour in small doses when the contractions are weak. After the delivery of the placenta, if the uterus fails to contract sufficiently, he gives from half to a teaspoonful of the fluid extract to provide against hæmorrhage. He finds that there is an increase of force in intermittent contractions from small doses, continuous action from large. In some cases he finds no beneficial results at all.

According to Wernich ergotine lessens the tension of the veins and increases their dilation. This produces arterial anæmiaof the uterus and its nerve centres, which increases the duration and intensity of its contraction; after strong doses the intervals cease altogether and a condition very like tetanus uteri sets in.

According to Kobert this action is due to sphaoelic acid contained in ergot, while the ergotinic acid has no effect on the uterus whether gravid or not. The third constituent part of ergot, cornutin, a pure alkaloid, was, according to Grafe's and Erhard's experiments, given repeatedly in the first stage of labour in doses of 5 mg. and in nearly two-thirds of the cases improved the pain and did the mother no harm.

Schatz declares that the action of ergot begins fifteen minutes after its administration by the mouth, is greatest in thirty minutes, and the effects of a single dose last for an hour.

Winkel says its use in placenta prævia, before and during labour is still sub judice. Auvard used it with unsatisfactory results, mortality being 42 per cent. of the mothers and 77 per cent. of the children. On the other hand Wilson had a mortality of 6.6 per cent. of the

mothers and 26.6 per cent. of the children, using it before labour.

Counter indications, I know of none, unless it be its administration during the progress of the first and second stages of labour, or in cases of known idiosyncrasy where it causes severe and exceedingly painful tonic contractions, amounting almost to tetanus uteri.

Caseaux recommends ergot for use in the third stage, as causing firm uterine contraction, promoting involution and tending to prevent hæmorrhage.

To sum up with regard to ergot, it is used by the great majority of practitioners, as well as recommended by the standard authors at home and abroad. They nearly all agree that it undoubtedly produces firm contraction of the uterus at the completion of the third stage, if given in doses of one fluid drachm, grasping the fundus, assisting in keeping up not only the contraction but the polarity of the uterus; and inasmuch as it takes 15 to 20 minutes to act it had better be given immediately on the completion of the second stage. None of them speak of any bad effects resulting from its use, and I fail to see why any sensible practitioner should refuse or object to its use. My own practice certainly is, both in private and in the hospital, to give one fluid drachm at the conclusion of the second stage, and in the hospital I give for the following week ten drops of the fluid extract three times a day, combined with both digitalis and quinine. This latter, I believe, both tends to close the sinuses and regions from which infection might occur, and to promote involution as well as slightly to increase the blood pressure. The latter I consider to be a distinct advantage.

STYPTICS.

Dr. Playfair states that in severe cases where the uterus obstinately refuses to contract in spite of all our efforts—and do what we may cases of this kind will occur—the only other agent at our command is the application of a powerful styptic to the bleeding surface to produce throm-

bosis of the vessels. The latter, says Dr. Ferguson in his preface to Gooch on diseases of women, appears to be the sole means of safety in those case of intense flooding in which the uterus flaps about in the hand like a wet towel. Incapable of contraction for hours, yet ceasing to ooze out a drop of blood, there is nothing apparently between life and death but a few soft coagula plugging up the sinuses. These form but a frail barrier indeed, but the experience of all who have used the injection of a solution of perchloride of iron in such cases proves that it is thoroughly effectual, and its introduction into practice is one of the greatest improvements in modern midwifery. The dangers of the practice have been strongly insisted on, but there are only one or two cases on record followed by any evil effects. Its extraordinary power of instantly checking the most formidable hæmorrhages is well known to all who have tried it. Indeed, Playfair goes so far as to say that no practitioner should attend a case of midwifery without having his styptic with him, and the best and most easily obtainable form is the liquor ferri perchloridi fortior of the B.P. and should be used diluted with six times the bulk of water. It is important that the air should be got rid of out of the syringe with which it is introduced into the uterus, and to get the best effect the uterus should be emptied of all clots, etc., before its use. After its use for some days intra-uterine injections should be used to remove the coagula which are certain to form, and thus avoid sapræmia.

Winkel says, in severe cases of hæmorrhage where other means have been tried and failed, equal parts of the liquor ferri perchloridi and water may be slowly injected into the uterus with good effect, or it may be applied by means of a sponge or piece of absorbent cotton to the site of the hæmorrhage.

Reynolds, of Boston, recommends that in severe cases of hæmorrhage, Monsell's solution or liquor ferri persulphatis diluted with four times its quantity of water should be

passed into the uterine cavity on a ball of absorbent cotton, the uterus being first cleared of all clots.

Dr. Norris, of Pennsyvania, considers that styptic salts of iron are dangerous, as the coagula produced by them may extend into the vessels and must be broken up by putrefaction, exposing the patient to septic poison.

To sum up with regard to the use of iron in postpartum hæmorrhage, several of the standard authorities, such as Playfair, Winkel, etc., recommend its use as being the only remedy that is invariably successful. My own experience has been most favourable to the use of iron, and in the Women's Hospital, as well as in private practice, the invariable rule is in all cases of alarming hæmorrhage, to use liquor ferri perchloridi diluted with from six to ten times its bulk of water. I have never had an accident during or after its use; the results have been invariably gratifying. A common objection has been raised, and that is air being injected into the vessels. I fail to see that it is any more likely to be injected with the iron solution than with any other injection, although one could perhaps understand air being imprisoned in clots, but this perhaps is far fetched and harmless. I think the chief danger, if not the only one, that is the clots which form in the uterus are firm and do not easily come away and are apt to set up sapræmia, unless they are washed away by intra-uterine douches given at least twice daily. Another danger might perhaps be if the end of the nozzle were applied directly to a sinus the solution might be pumped directly into the circulation. I can find a record of but three fatal cases from its use, two mentioned by Playfair and one witnessed by Dr. J. C. Cameron at the Rotunda, Dublin.

Noeggerath recommends tincture of iodine, 1 to 5 of water.

Dupierries 30 water, 15 tincture of iodine, potassium iodide 5. These do not seem to be greatly used, though they doubtless act as styptics.

Reynolds refers to tincture of iodine being used prefer-

ably to Churchill's, and states the advantage of iodine over the iron solution is its more stimulating character, and the lesser liability of causing an extensive thrombosis formation and a consequently increased danger of septic infection.

Penrose strongly recommends strong vinegar, which has the advantage of being always readily obtainable. He speaks highly of its hæmostatic effect. He soaks a clean handkerchief in it and introduces it by the hand into the uterine cavity, and squeezes it over the endometrium. He says the effect of the vinegar flowing over the sides of the cavity of the uterus and vagina is magical. The relaxed and flabby uterine muscle instantly responds, the organ assumes what is called its gizzard-like feel, shrinking down upon and compressing the operating hand and in the vast majority of cases the hæmorrhage ceases instantly.

Playfair remarks that it might be worth trying before using the iron solution.

Reynolds advises a 1 to 100 hot water solution of the officinal acetic acid as a prompt styptic.

Creolin if added, even in the quantity of a few drops, to the hot water injections used in post-partum hæmorrhage, acts as a powerful styptic as well as a good antiseptic, or carbolic acid may be added to the hot douche about the strength of 1 to 40 or 80 and would be found to act as a hæmostatic by its stimulating contraction of the uterus.

DISINFECTANTS.

The use of disinfectants in the third stage is at present a vexed question, and the use of douching either before labour or after labour, unless for cause such as a severe leucorrhœa or one that is suspected of being infected by gonococci, is at present rather condemned than advised. In one of last numbers of the *Archives for Gynæcology* are statistics very unfavourable to it. Probably the most commonly used disinfectant is corrosive sublimate.

Winkel says the use of corrosive sublimate for irrigating

the uterus is to be avoided, as poisoning is liable to supervene, but if used, a 1 to 5000th corrosive sublimate solution at a temperature of about 110 to 115° F., that is, at that which is distinctly but not uncomfortably hot for the hand.

Playfair says that a solution of 1 in 2000th solution of perchloride of mercury may be used, if needed, to diminish the danger of sapræmia.

Reynolds recommends a 1 to 5000th corrosive sublimate solution at a temperature of 110 to 115° F.

Dr. Howard Kelly writes, "The best disinfectant in puerperal cases is pure warm water. The trouble of all drugs applied intra-uterine is that they only reach the less superficial area, and if there are any foci of infection the germs which lie deep in the tissues are neither destroyed nor removed. For this reason I consider the mechanical means, with pure and free drainage, the best. The bichloride of mercury I consider dangerous and inefficient, and ought never to be used under any circumstances intra-uterine."

Dr. Norris, of Pennsylvania, says the bichloride of mercury is effective but dangerous. Creolin is as powerful and safer, and is therefore to be recommended.

My own experience of the use of corrosive sublimate post-partum, in similar and even weaker solutions, is most unfavourable, although followed by large douches of warm water, which but few authors recommend to be used. In a solution strong enough to be of service most authors agree it is dangerous to use intra-uterine, and it ranks no higher in the comparative table than does creolin and probably strong solution of permangenate of potash. Therefore it ought to be discarded, except for external use.

Ice and iced water are recommended by many authors to be used in cases of p.p. hæmorrhage, the ice introduced to be not larger than a walnut. There are several objections, I think, to its use; it increases the shock already existing, although it undoubtedly checks the hæmorrhage

for the time being, and as soon as it melts or is removed the hæmorrhage often returns as severely as before, the uterine vessels which it contracted now dilating. Great care would also have to be used that no sharp irregular pieces were introduced, as the contraction produced by the ice might possibly drive the sharp points through the uterus. In winter in this country some practitioners make a hard snowball and introduce it, thus avoiding the danger of perforation.

Hot water is probably the most commonly used and best means for checking p.p. hæmorrhage at a temperature of from 110° to 128.75° F., this latter temperature being, in my opinion, much too warm, being decidedly uncomfortable to the hand. The water should have been boiled and been allowed to cool. It has the advantange of being always obtainable, of as a rule stopping the hæmorrhage, and of allowing afterwards some other means to be used if desired. The quantity to be used should be at least from one quart to half a gallon, and if given by a douche bag held sufficiently high, at least six or seven feet, will not only check hæmorrhage, but also remove the debris from the uterus. One point about giving the hot douche is that a metallic nozzle should never be used, preferably a perfectly aseptic German glass tube.

The question may be asked, what would you consider a dangerous hæmorrhage? This is only a relative term, for what to one would be but a slight hæmorrhage might to another, or to the same under certain conditions, be a dangerous hæmorrhage. Generally speaking a slight hæmorrhage would be from 500 to 1,000 gms. of blood lost, a profuse hæmorrhage from 1,000 to 1,500 gms., and a dangerous from 1,500 to 2,000 gms.

STIMULANTS.

Amongst the stimulants used in p.p. hæmorrhage probably none will be found to act more promptly or satisfactorily than the nitrate of strychnia, in doses of from one-fortieth to one-twentieth of a grain hypodermically, within

a very short period the pulse rate becoming much slower and fuller.

Opium in cases of hæmorrhage is highly recommended by many of the authors and seems to have a direct action as a stimulant upon the heart. It is best given in the form of a hypodermic of Battley.

Brandy or ether are used hpodermically, either after severe hæmorrhage with heart failure, or heart failure from any cause in the third stage or immediately after it. It is given hypodermically in half drachm doses repeated as often as needed. Most authorities recommend its use.

A solution of chloride of sodium, although seldom used directly in the third stage, may be needed and is a most excellent remedy immediately after severe cases of hæmorrhage, whether post-partum or in cases of placenta prævia. Its use is found in supplying fluid to the arterial system depleted by the hæmorrhage, and perhaps preventing too great absorption of noxious fluids. It may be best administered in the strength of a desert-spoonful and a half to a quart of tepid water and allowed to trickle into the rectum from the douche bag placed at about the level of the anus, the attendant every half hour lifting the bag and allowing a small quantity to enter. As much as a gallon and a half may thus be given and absorbed in thirty-six hours, the effect on the pulse being most gratifying, being not so compressible and much more full. The advantage of the solution of sodium is that it is readily absorbed by the rectum.

In conclusion, I beg to thank you, gentlemen, for the patience with which you have listened to me. The brief which I have held for the use of drugs in the third stage I have endeavoured to defend, and I hope to convince any sceptics, if it be possible there are such, that drugs are not only useful, but on occasions absolutely required, and any one not using them places himself against the weight of authority in the medical world.

THE EARLY SYMPTOMS AND THE TREATMENT OF HIP-JOINT DISEASE.

By A. M. Phelps, M.D., New York City.

Professor of Orthopædic Surgery, Medical Department of the University of New York; Professor of Surgery, University of Vermont: Professor of Orthopædic Surgery, New York Post-Graduate School and Hospital; Surgeon to the City Hospital, etc.

Before considering the early symptoms of hip-joint disease I would like to call attention briefly to a few facts which are observed clinically. Joints attacked by inflammation, either intra or extra capusular, have a condition of rigidity or spasm of the muscle about them. This is due to irritation of the terminal nerve plates in the area of disease transmitted through the reflexes. The muscles operating upon the joint, which are supplied by a nerve given off from a common nerve trunk (one branch distributed to the area of disease, the other to the muscle) are affected by spasm, while the other muscles may remain quiescent. That muscle affected by spasm will rapidly atrophy. These facts are observed particularly in inflammation of the knee-joint. The knee-joint is supplied posteriorly by branches from the great sciatic nerve. The patella is supplied by nerves given off from the anterior crural. When inflammation attacks the condyles, flexion and rapid atrophy always takes place, but in patella disease or diseases located anteriorly the limb remains in a straight position, owing to the fact that the reflexes are distributed through the anterior crural, and not through the great sciatic. Assuming that these propositions are correct, and clinical observations seem to demonstrate them, we must at once conclude that rigidity of the muscles from spasm, producing a limit of motion, would be the first symptom observed in any joint disease. Limit of motion in any joint produces deformity; we would designate as the second most common early symptom in joint disease, deformity.

This limit of motion and deformity produces a limp. So that I think we can safely say that limit of motion, deformity and limp are nearly always, if not always, present in hip-joint disease in the early stages. There are in general joint diseases eight cardinal symptoms, two or more of which are always present. These cardinal symptoms are pain, heat, swelling, pain on joint pressure, limited motion, spasm of the muscles, atrophy and deformity. Each joint has superadded to these eight cardinal symptoms other special symptoms. These special symptoms are due to the anatomical characteristics of the joint. In hip-joint disease pain is not always a common symptom, rise of temperature owing to the depth joint is hardly perceptible; swelling is not seen until effusion or dislocation takes place; pain on joint pressure is present only in intra-capusular disease, located between or near the articular surfaces. Limited motion, spasm of the muscle, limp and deformity, with apparent lengthening or real shortening, are nearly always seen associated together. Atrophy pretty constantly occurs, especially in bone diseases, and it may occur as early as the tenth day. The other symptoms observed in the early stages are night cries, pain in the knee, flattening of the buttock, partial or complete obliteration of the gluteal fold.

When the limb is in a straight position the muscles accurately balance it, but when the limb becomes flexed the action of these muscles is changed in proportion to the amount of flexion. If these muscles are in a condition of excitability or spasm from reflex irritation, one can easily see how various deformities can take place depending entirely upon the position of the limb when the muscles act. When this great mass of muscles is affected by spasm, which is always the case in inflammation, one can readily see how limit of motion and deformity to a greater or less extent, must be the earliest symptoms observed.

Before the last American Orthopædic Association, I presented a model, together with several dissections which I

had made of the joint, for the purpose of demonstrating why the limb assumes certain positions, with occasional exceptions, when the joint is inflamed. The capsule of the normal joint is twisted around the head and neck in such a manner that when the limb is in a straight position great tension is exerted upon the joint through the capsule and its other ligaments. Now, when the joint or capsule becomes inflamed, the patient invariably places his limb in a slightly flexed and adducted position to relieve tension and changes altogether the action of the muscles, they being in a condition of spasm, together with the voluntary act, produce the deformity of the first and second stage of the disease. When flexion takes place just a little further the action of the muscles is entirely changed; abductors become inward rotators; outward rotators become to a certain extent abductors, etc., etc. Resistance not being offered to the abductor muscles, the limb, by their contraction, passes over to the deformity of the third stage of hip-joint disease, that is, abductive flexion and inward rotation. There are exceptions to these deformities, which I have designated as erratic, but they will not be considered now.

These deformities take place whether disease is intra-capsular, whether there is affection into the joint or not, and let me say here that only a limited number of cases have effusion into the joint in the early stages.

To conclude, the importance of symptoms, I believe, speaking generally, occur about in the following order:

1, Limit of motion.

2. Deformity, with apparent lengthening or real shortening.

3. Limp.

4. Atrophy (bone disease).

5. Pain in knee (with absence of the knee-joint disease).

6. Pain on joint pressure.

7. Night cries in absence of other joint disease.

8. Flattening of buttock, with change in glueal fold.

9. Heat

10. Swelling.

The order of these symptoms might be transposed a little by some authors, but this order will answer for diagnostic purposes.

Treatment.—The treatment of hip-joint disease is divided into operative and mechanical. In all cases where abscesses are present they should be immediately evacuated. This enables the surgeon to intelligently explore the diseased joint with his finger and ascertain to what extent the disease has progressed. If the head of the bone is separated from the neck it should be removed, together with the great trochanter and the neck. The acetabulum if diseased should be thoroughly curetted, together with any other diseased tissue that may be found in the joint. If only small points of disease are found within the joint those should be curetted, together with whatever diseased tissue exists within the joint, and the cavity washed out with bichloride solution 1 to 2,000. The joints should now be filled with a solution of iodoform and glycerine, one-half ounce of iodoform to four of hot glycerine. After this has been done the patient should be put in bed with extension in the line of deformity and lateral traction above the knee, amounting to about three pounds. Day by day the limb should be lowered, until the deformity is overcome. When the deformity is overcome, the lateral traction fixation splint which I devised and use in the Post-Graduate and University Dispensaries should be adjusted and the patient put on crutches with a high shoe on the well leg. Pus and tubercular material destroys living tissue, and when joints are allowed to macerate for weeks and months in these materials, which now seems to be the favourite method of many of our orthopædic surgeons, extensive destruction of bone will almost surely follow. In many cases extensive cutting of muscles, tendons and fascia may be necessary to overcome the deformity. The reader will see, then, that we believe that deformities should be first overcome and all abscesses opened before the mechanical work begins.

No case of hip-joint disease need recover with angular deformity, and to secure and attain this end steps should be taken at the commencement of treatment to place the limbs parallel, after which the lateral traction fixation splint, already alluded to, will prevent the patient from becoming again deformed.

Mechanical Treatment.—For many years the profession have been taught that the long traction splint used by Sayra, Taylor, and others, was the proper machine to use. The patient is allowed to walk upon this splint, using it as a perineal crutch. The splint stops at the trochanter and exerts no power over the joint on that account to fix the joint. The patient stepping upon this splint with the strap around the perineum causes trauma of the joint while walking, and nearly every splint that I have seen adjusted allows the patient to put his toe upon the ground, which, of course, drives the head of the bone into the acetabulum each time the patient steps. This pumping of the head of the bone backwards and forwards into the joint at the rate of 2,000 times an hour each day, as the child runs, accounts for the disastrous results which we see published from institutions where this splint is used. The statistics published by Shaffer and Lovett in the *New York Medical Journal* from the 59th Street Orthopædic Dispensary in 39 cases reported on in a series of many hundred.

Ankylosis	19
Slight motion	6
	25
Motion from 10 degrees	7
Motion to right angle	3
Motion free	3

The three with free motion were treated during the first stage of the disease; two were under three years old. There were only two cases without shortening. The splint used was the long traction, which I have already described, —one which admits of free motion at the hip joint and the patient is allowed to walk upon. This splint was devised during a time when it was believed the fixation would

produce ankylosis of the joint, and that motion was necessary to keep up the nutrition of the joint. It is needless for me to say that we have outgrown both of these ideas. The statistics of Chambers' Street Hospital of 50 consecutive fractures of the elbow joint show only one case of ankylosis. These patients were fixed in plaster of Paris

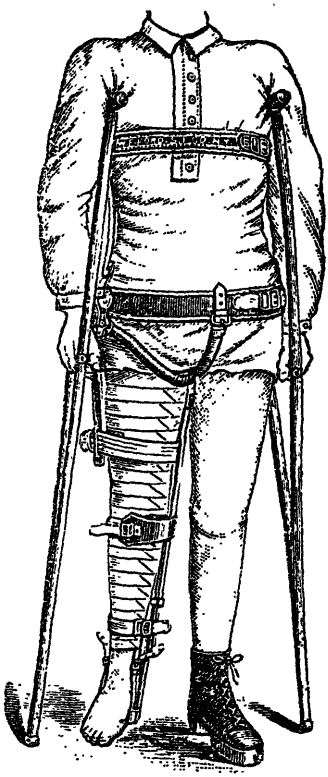

Fig. 1.

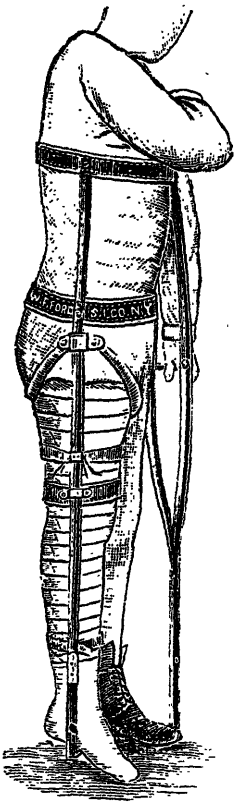

Fig. 2.

for many weeks, without passive motion. In the Post-Graduate Hospital and University Dispensary we fix our cases of hip-joints from one to five years without motion, with the lateral traction fixation splint, and in our long series of cases not one has resulted in bony

ankylosis, and where we have had control of the patients they have recovered, practically, without angular deformity. Shortening is seen in this long cases series of cases only from non-development of the limb, and extensive bone destruction. The accompanying cuts and description will convey a very accurate idea of the splint which we use in treatment after the deformity has been in bed overcome. Tissues inflamed or diseased should be put at rest, to allow the normal process of repair to take place without the

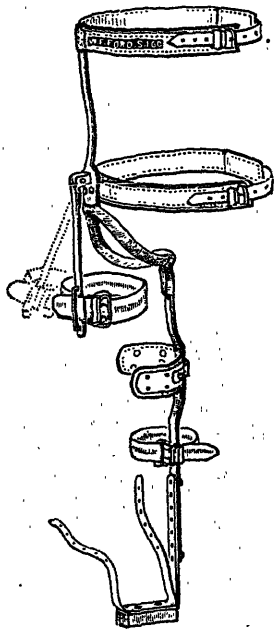

Fig. 3.

trauma of motion. This is the law. It is applied in the treatment of the iris, fractures, sprains, and any tissue that can be immobilized. To carry out the requirements of this law so far as is possible I was led to devise the splints illustrated in this article.

To fix the hip-joint, a splint must extend from the foot to the axilla. (See Figs. Nos. 1 and 2.)

Fig. 1 represents the perineal crutch, with the abduc-

tion bar, adjustable by means of a key, for the purpose of making lateral extension. The steel bar is adjusted to the steel ring, which makes a firm crutch, the pressure coming on the tuberosity of the ischium. Adhesive straps extending to near the body from the ankle furnish means of extension by tightly buckling them to the straps in the foot piece, the ring furnishing counter-extension. The rod ending in the upper ring, prevents flexion and extension of the legs. The splint is intended to prevent

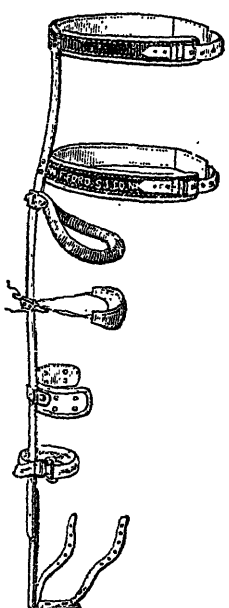

Fig. 4.

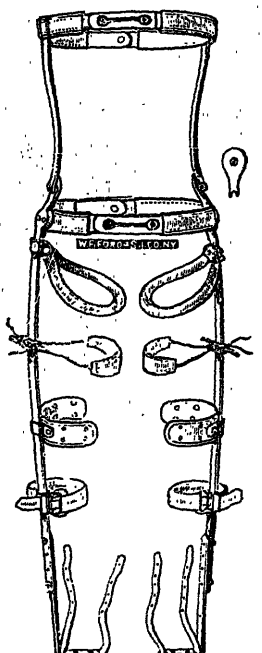

Fig. 5.

every motion at the hip-joint, and at the same time apply extension in a line with the neck of the femur. Fig. 1 shows the crutch and splint adjusted, the patient using crutches and standing upon a high shoe upon the well leg.

This splint I found a little too expensive for dispensary work. I then constructed the splint (Fig. 3), which simply does away with the extension joint and key. This was

also too expensive for hospital work, but both splints did the work perfectly.

After a time, for my poor patients in the hospitals and dispensaries, I succeeded in perfecting a cheap splint, which applies the principle of fixation and traction in the line of the neck.

A glance at the cut will convey the idea. Fig. 2 and 4 are the single and Fig. 5 the double splint for hip disease. The splint is a bar of steel, extending from the foot to the axilla, accurately bent to fit the body. A tracing made on paper by laying the child on it will assist in shaping the bar. A pelvic belt, a thoracic belt, and a great perineal ring complete the fixation part of the splint. The straps in the foot-piece buckles to adhesive straps attached to the leg, which make longitudinal traction. The strap lashes the leg to the splint, making lateral traction precisely as the abduction bar acts in Figs. 1 and 3.

An ordinary blacksmith can construct this splint.

Before either these or any other splint is adjusted, however, the patient should be treated in bed until deformity is overcome and the active stage of the disease somewhat modified.

To conclude, my observations lead me to believe that the most serious element of destruction in hip-joint disease is the training and pressure produced by the spasm of the muscle; and walking on the splint; that fixation of the joint without extension is an impossibility; that the successful treatment of the joint must depend upon its absolute immobilization, which can only be produced by proper extension and fixation; that the constitutional treatment of hip-joint disease amounts to little, independent of mechanical treatment; that mechanics is everything; *that extension in a line with the axis of the shaft and deformity alone, in hip-joint disease, is entirely wrong;* that extension should be *made in a line parallel to the axis of the neck*;—in other words, *two lines of extension*,—otherwise the idea of extension is not perfectly carried out; that

ankylosis of the joint is not produced by immobilization, but by the severity and character of the inflammation; that the long traction hip-splints in general use neither properly extend nor immobilize the joint; that the intra-articular pressure results in the destruction of the joint or ankylosis in a large percentage of cases is proved by statistics; that the results in hip-joint disease should be as good as those of knee-joint disease, and will be, provided perfect immobilization can be carried out; that patients should never be allowed to step on any portative apparatus; that a high shoe on the well leg and crutches should be insisted upon until the patient is cured; finally, *that the angular deformity seen in cured cases should not occur, and such cases are a standing rebuke to the splint and methods employed. In other words, no patient with hip-joint disease need ever recover with angular deformity.* In exceptionally neglected cases of dislocation a slight amount of deformity had better be left than resort to osteotomy.

Reviews and Notices of Books.

On Chorea and Choreaiform Affections. By Dr. William Osler, M.D., Fellow of Royal College of Physicians, London; President of the Association of American Physicians; Professor of Medicine Johns Hopkins University, and Physician-in-Chief Johns Hopkins Hospital, Baltimore. London: H. K. Lewis, 136 Gower street. Philadelphia: P. Blakiston, Son & Co. 1894.

Dr. Osler has done so much good work in chorea and allied affections that we welcome with pleasure a systematic treatise on this subject from his pen. This volume represents the results of much accurate study and great experience. Following an introduction we have chapters devoted to the etiology and symptoms of the disease. One of the best chapters in the book is that on the heart in chorea minor. The morbid anatomy, pathology and treatment are fully considered. The remaining chapters deal with the allied affections, as simple and general tic, habit chorea, tic with imperative ideas, complex co-ordinated forms of tic, and chronic progressive or Huntington's chorea.

Text-Book of Hygiene. Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By George H. Rohé, M.D., Professor of Therapeutics, Hygiene and Mental Diseases in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiène, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Philadelphia: The F. A. Davis Company.

The third edition of Dr. Rohé's treatise on hygiene is in many respects an improvement on previous editions. For the general practitioner and those who devote their sole attention to this subject the book is a valuable one. The chapters

on the measures which should be followed in combating different epidemics are full and up to our most recent knowledge on these subjects. The subject of quarantine is very ably handled by Surgeon-General Walter Wyman and Dr. H. D. Geddings, of the United States Marine Hospital service. Dr. A. L. Gihon, of the United States Navy, revises the chapter on marine hygiene.

Practical Urinalysis and Urinary Diagnosis: A Manual for the Use of Physicians, Surgeons and Students. By CHARLES W. PURDY, M.D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate Medical School; author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms and Treatment." With numerous illustrations, including photo-engravings and coloured plates. In one crown octavo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

This work, as its title indicates, is devoted to practical urinalysis and the diagnosis of urinary diseases. It is in many ways the most complete handbook on the subject in the English language. It deals not only with the medical, but also with the surgical aspects of the entire subject. It is therefore specially adapted for the needs of those who are in general practice.

In dealing with normal urine the author considers each of its constituents as follows: Its chemical nature and composition; its source; the meaning of its increase or decrease; together with the relations each constituent bears to metabolism, food supply, etc., etc. The most approved and recent methods for the quantitative and qualitative determination are fully given. The abnormal substances met with are also treated in a full and satisfactory manner. The second part of the work treating of urinary diagnosis is a concise description of the various urinary diseases, their diagnosis, causes and treatment. A valuable chapter is also devoted to urinary examinations for life insurance.

The Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., F.R.C.P., Professor of Materia Medica and Therapeutics, and of Clinical Medicine, at University College; Physician to University College Hospital, etc. Ninth edition. London: H. K. Lewis, 136 Gower street. 1894.

The well-known text-book of Dr. Roberts has been a favourite work for upwards of twenty years. Extremely few works of this character have for so long a period enjoyed the confidence of students and practitioners. The arrangement of the work has been altered in some respects in the present edition. The changes made will conduce to its usefulness. Recognizing the great importance of bacteriology to the thorough comprehension of so many diseases, the author has devoted special consideration to this subject, both in its general aspect and in its connection with special diseases. Connected with each system there are chapters devoted to its general therapeutics which will prove, we have no doubt, of value in enabling the reader to gain a more thorough grasp of his subject.

It is hardly necessary to mention that the work on the whole has been thoroughly revised. The well-known publishers have performed their part well.

An American Text-Book of the Diseases of Children. By American Teachers; Edited by LOUIS STARR, M.D., Assisted by THOMPSON S. WESTCOTT, M.D. Philadelphia: W. B. Saunders. 1894.

This is a large and beautifully printed and illustrated volume of more than 1,100 pages, in which the articles have been contributed by the more eminent teachers of pediatrics in America. Not only does it embrace all those subjects which are generally included in a work on medicine proper, but it includes also special chapters on essential surgical subjects; also on diseases of the eye, ear, nose and throat, and a series of chapters on diseases of the skin.

The author says in his introduction that it has been his object to have careful condensation without omission. He has, therefore, limited the subject matter to such practical points as etiology, symptomatology, diagnosis, treatment and prophylaxis.

The volume opens with a chapter on the clinical investigation of disease in children, by the editor. Prof. Leeds, of New York, contributes an exhaustive paper on the chemistry of milk and of artificial food for children. Exercise and massage, and sea air and sea bathing in convalescence are chapters which will afford the practitioner useful knowledge, not easily obtained elsewhere.

Dr. Osler furnishes an excellent chapter on tuberculosis and discusses the various general and localized forms in which it is met with in childhood. Speaking of its prophylaxis he says: "While the possibility of inherited transmission from an infected mother cannot be denied, we have to face the fact that in a large proportion of all cases of tuberculosis the infection is at the gateway of the body—namely, in the bronchial and mesentric lymph-glands—and we have here a clue to the two chief sources of danger. The liability of children to contamination through the air when other members of the family are diseased is greater than in the case of adults, and the habit of young infants as they creep about of putting everything in their mouths enhances the liability to infection. The second danger lies in the use of milk from tuberculous animals. Experiments have shown the readiness with which young pigs and calves become infected when fed with milk of tuberculous cows. We have, unfortunately, no reason to believe that children are less susceptible than calves. The infection through meat is probably a very slight danger. Individual prophylaxis in the infant is of almost equal importance. A child born of delicate parents, or in a family in which tuberculosis has prevailed, should be reared with the greatest care."

The infectious diseases receive full consideration in a series of carefully written articles. Dr. Northup writes the article on scorbutus, and remarks that this is the first time in which scurvy has appeared in a text-book as a disease occurring in the United States.

Among the notable chapters in the part devoted to diseases of the digestive organs is an article on diarrhœal diseases, by Dr. Vaughan, of Ann Arbor. These are treated under the following sub-divisions: Acute Intestinal Indigestion, Chronic Intestinal Indigestion, Milk Infection, Acute and

Subacute. In speaking of the summer diarrhœas of infants, he says, "These diarrhœas are due to poison-producing bacteria. There is not a specific micro-organism, as there is in tuberculosis, but any one or more of a large class of germs may be present and may produce the symptoms. . . . . The contents of the intestines in the so-called summer diarrhœa of infancy, swarm with bacteria of many species, and some of them produce most powerful poisons. These bacteria multiply outside of the body, and are disseminated widely and abundantly only when the atmospheric temperature reaches 60°F. or higher. This is the reason for the restriction of these diarrhœas to the hot months of summer. . . . . There is no doubt in my mind that wholesome, uninfected milk in the raw state is a better food for the infant than cooked milk. The heat of sterilization robs the casein of the milk of its vital properties, as can be demonstrated by experiments. But I am equally positive that it is better to feed the city child upon sterilized milk, than it is to use that which, with the prevailing ignorance and carelessness of dairymen and dealers, is liable to be infected. The risk of using unsterilized milk is too great, and the question with the parent, or physician, is not am I giving the child the best food? but am I giving it a poison? The choice is easily made when the matter is looked at in this light." Diseases of the Nervous System form the next division, and the several subjects receive careful consideration. The principal articles in this department are written by Dr. Chas. K. Mills, Dr. Frederick Petersen, and Dr. Landor Carter Gray. Diseases of the Respiratory System, Diseases of the Heart and Diseases of the Genito-Urinary System follow, containing contributions from Dr. Pepper, Dr. Shattuck, Dr. Barton Hirst, and others. The volume ends with very complete articles on Diseases of the Skin, of the Ear and of the Eye, as met with in children.

The work is one of the most important which has been published on the subject of Diseases of Children for some years past. The publishers have spared no expense on their part of the work. Many of the plates are coloured and the woodcuts and photographs are numerous and well executed.

The Principles of Surgery and Surgical Pathology.

General rules governing operations and the application of dressings. By Dr. HERMANN TILLMANNS, Professor in the University of Leipzig. Translated from the third German Edition by John Rogers, M.D., New York, and Benjamin Tilton, M.D., New York. Edited by Lewis Stimson, M.D., Professor of Surgery in the University of the City of New York, Medical Department. With 441 illustrations. New York: D. Appleton & Co. 1894.

In this work only the principles of surgery and surgical pathology are taken up, following the German method of dividing surgical text-books into two distinct parts, the "general" and "special."

It is subdivided into three sections, the first dealing with the general principles governing surgical operation; the second, the method of applying surgical dressings; and the third, surgical pathology and therapy.

Under the first heading are discussed all questions likely to arise before, during and after an operation. Rules are laid down for the preparation of the patient, the instruments and dressings; the various methods of producing anæsthesia are briefly reviewed, chloroform being given first place, although ether is allowed to be the safer anæsthetic; a chapter is devoted to the prevention of loss of blood during an operation. The method of dividing and of suturing the tissues are described, and also the drainage of wounds and the principles governing this procedure. This section closes with general considerations on amputations, disarticulations and resections, and also on plastic operations.

The second part of the work, dealing with the methods of applying surgical dressings, is the most important part of the work in some respects, for here we have the preparation of antiseptic and aseptic dressing, the uses of antiseptics, when and how to change an antiseptic dressing, as well as much other information of a similar character which is not usually dealt with at length in text-books. The third and last part of the book is devoted to the pathology and treatment of surgical diseases, inflammation, injuries, diseases and injuries of bones and joints, ending with a short section on tumours.

The work is a departure from the usual line of surgical text-

books, as will be seen from the *resumé* of the contents which we have given. This sketch gives an inadequate idea of the value of the book, being merely an outline of its scope, but it can be readily seen that it will prove more useful, both for study and reference.

Of the press work and illustrations, we need only say that they are fully up to the publisher's usual standard.

Surgical Pathology and Therapeutics. By JOHN COLLINS WARREN, M.D., Professor of Surgery in Harvard University; Surgeon to the Massachusetts General Hospital; pp. 832, illustrated. Philadelphia: W. B. Saunders. 1895.

This valuable work deals with the scientific side of surgery exclusively, a side which of late years has come into such prominence. Very properly the first chapter is devoted to bacteriology and the next to the surgical aspect of the same subject. Coloured plates are introduced representing the different bacteria as they appear under the microscope, and also representing culture tubes, showing their growth. These will serve as a great help to the reader, the plates being very carefully drawn and coloured.

The infective inflammations form an important part of the work, including a very useful chapter on acute osteomyelitis. Tumours are divided according to their clinical characters, namely, into malignant and benign, and their characteristics are described as they appear in the various parts which they attack. The infective diseases also receive due attention. Altogether it is a work which is most readable, and we can strongly recommend it to all who wish to study surgical pathology and the therapeutics based thereon.

Selections.

Colds: Their Causes, Prevention and Treatment.—While we are all familiar from personal experience with the phenomena of an ordinary cold, yet to explain the relation between the cause and the effect becomes extremely difficult. For example, we know that if the feet are exposed to cold and dampness we are almost sure to suffer from an attack of coryza or cold in the head. Why should the exposure of the feet give rise to an inflammation is so distant a portion of the body?

Many theories have been advanced in explanation. One theory is to the effect that an impression upon one surface of the body is conveyed to the brain centres and reflected by the sympathetic nervous system to another and distant portion of the body. The impression being reflected and symptoms manifested in that portion where there is the least resistance. If the mucous membrane of the nasal cavities has been weakened by previous attacks, or is in constant state of mild inflammation, the symptoms will be manifested here. If the throat or bronchial tubes constitutes the area of least resistance it is here that the inflammation will be manifested. While this theory is somewhat plausible, yet it is not entirely satisfactory.

Another theory is to the effect that if the blood is driven from one portion of the body as a result of exposure, it causes congestion and increased blood pressure in other portions, especially the internal organs. This theory is not satisfactory. If true, it would be the internal organs that would suffer, and not the superficial ones.

Another theory, advanced by Bosworth, is to the effect that taking cold is due to the removal of heat to an unusual extent from the external or internal surface of the body. This gives rise to a functional disturbance, which

in turn excites some morbid process in some distant portion of the body. It is undoubtedly true that taking cold, or the phenomena that result from exposure, is due to some disturbance in the relation existing between heat production and heat radiation. We know there are certain nutritive changes going on constantly in the body. We know that these nutritive changes produce the body heat. We know that the normal temperature of the body produced by these nutritive changes is 98.6 degrees. We also know that there is a constant radiation of heat from the body. If there is a disturbance between the normal relation of heat production and heat radiation, certain morbid processes are sure to result. If more heat is extracted from the body than can be produced by those nutritive changes, alarming and fatal symptoms at once occur.

Bosworth has well illustrated this result in the case of a swimmer. As long as one, by active exercise in the water, can maintain the normal body temperature all goes well, but when sufficient activity can not be maintained to keep up the normal body heat, then there is the great exhaustion, intense venous congestion, feeble circulation and the fatal cramps.

In case only a portion of the body is exposed to cold or dampness there is simply a disturbance of the nutritive changes occurring in that part and the effect of this disturbance is manifested in some distant part, in that portion where there is the least resistance. This heat production and distribution has been compared (Bosworth) to that occurring in an ordinary *chandelier*. If all the jets are lighted, they will burn with a steady, uniform brightness. If one or two jets are turned off, the others will burn with increased pressure and brightness. If one of these jets is somewhat defective as a result of previous injury, and unable to stand the increased pressure, then this will flare up with greater brightness than the others. So in the human system, the nutritive changes that are constantly

going on, by which animal heat is produced, is the result of a certain nervous force sent out from the brain, the great reservoir of all nerve force. If heat production is arrested or disturbed in a certain part of the body, the same amount of pressure or nerve force being sent out from the reservoir, it necessarily follows that there will be increased pressure, increased nutritive activity in other portions, and if there is a weakened, defective surface, the increased nutritive activity will be manifested here. Increased nutritive activity constitutes inflammation, and thus we explain why it is that exposure of the feet to cold and dampness will produce an inflammation in the nasal cavities.

Why is it that people who go into crowded stores enveloped in furs and seal skins so frequently take cold? They can not understand it, for they are certainly clothed warmly. The trouble is this: As a result of the warm and oftentimes overheated atmosphere, together with the heavy wraps, more body heat is produced than is radiated. Nature endeavours to overcome this difficulty and perspiration occurs in order to diminish heat production. When they go out into the cold atmosphere, this perspiration is checked and there is now suddenly more heat radiated than before. There is again this loss of balance between the heat production and heat radiation, and a cold results. From these observations, it will be seen how easy it is to "catch a cold." The most common causes are exposure of the feet to cold and dampness, sitting in drafts and suddenly cooling off when the body is over-heated, passing from a close, over-heated atmosphere to one of cooler temperature, without proper protection, and last but not least, improper and insufficient clothing. Why is it that so many children, especially among the poorer classes in our great cities, are so frequently the subjects of chronic catarrh, bronchitis and laryngitis? Simply because they are not properly clothed. If we examine the clothing of any poor child, we will be surprised to find it so poorly protected, and we will not wonder that their little bodies can not

produce sufficient heat to keep them comfortable. The wonder is not that so many die, but that so many live. In the majority of cases we will find their limbs clothed in thin stockings, with no underclothing. Their arms are usually protected by the single thickness of the sleeve of the dress. Their bodies are fairly well and warmly clothed, but the extremities very poorly. While the adult will hardly be comfortable without at least three or four thicknesses of clothing covering the arms and limbs, yet the little child is frequently expected to be comfortable and well protected by a single thickness.

When cold has once been contracted and allowed to run its course, certain tissue changes result in the parts affected, that render them far more susceptible to the subsequent attacks. After a few seizures these tissues become thickened or infiltrated as a result of the inflammatory process, so that only the slightest exposure is necessary to produce an acute attack.

As a result of the thickening of the parts, it often becomes difficult or impossible to breathe properly and easily through the nasal cavities, and the patient resorts, especially at night, when unconscious, to oral respiration. As a result of breathing continuously for hours at a time through the mouth we have, in the course of time, a chronic pharyngitis, and following this a chronic laryngitis.

Acute colds are not always confined to the nasal cavities. The usual symptoms of acute coryza are frequently followed by a cough indicating an acute bronchitis more or less severe and frequently lasting a number of days. These attacks frequently repeated undoubtedly pave the way and render the lungs susceptible to more serious diseases.

How shall we prevent a cold? By so protecting and clothing every part of the body as to maintain the normal relation between heat production and heat radiation. Obviously, we will not wear chest protectors and heavy clothing and go out in damp, cold weather with thin shoes. We will not muffle the neck and wear a fur or sealskin cloak, and go out with kid gloves upon the hands. One who is

subject to sore throat or bronchitis will make a great mistake by wrapping up the neck and chest in flannels and at the same time neglecting the feet.

It has been very properly said that the throat and chest will be far better protected by an overshoe on the foot than by a flannel about the neck. Sufficient clothing should be worn to keep the person comfortable and to keep the normal nutritive activity in every part of the body. We should avoid over-clothing one part of the body and leaving another part insufficiently protected.

Treatment.—If asked if a cold can be cured, we would answer yes, almost certainly. If asked if a cold is cured, we would answer just as promptly, no, or very rarely. Unfortunately colds are allowed to run their course or are treated so inefficiently that no effect is produced. Indeed, the rule is that that one will not give up "for it is only a cold" until the symptoms have become really alarming, and then it is too late to cure it—we can then only palliate the symptoms. As has already been stated, a cold that has been allowed to run its course does permanent injury to the parts affected; resolution or return of the tissues to their normal condition is slow, even after the acute symptoms have subsided. Generally, before resolution has occurred, the person suffers another exposure and there is a renewal of the inflammatory process.

I again mention this tendency to recurrence on the slightest exposure to emphasize the importance of early and careful treatment. Bearing in mind the causes of these attacks, the indications for treatment become plain. We should endeavor to restore by appropriate measures the loss of balance between the heat production and heat radiation. Let us remember that as a result of exposure there has been deficient nutritive activity in that portion exposed. The measures to be instituted are those that will restore this nutritive activity to the normal degree. When, as a result of some exposure, it is evident that a cold has been taken, no time should be lost. The patient should at

once be given a hot foot bath, hot drinks as hot tea or hot lemonade, a good dose of Dover's powder, or ten grains of quinine, and placed in bed, well covered.

The copious perspiration that occurs indicates that our endeavours are successful, The normal heat production has been restored and nature is attempting to prevent an accumulation of heat by this sweating process. The patient should be uncovered gradually and thoroughly rubbed. Confinement to a warm room for a day or two, especially in cold, damp weather, is all that is needed to complete the cure. If cases are taken early, they can be almost invariably aborted by this line of treatment.

In many cases we can promptly abort a cold by the local application of atropia and cocaine, without the confinement of the patient to the house or bed, especially when the case is seen early. A 1 per cent. solution of atropia should be carefully, and not too freely, applied by means of a camel's hair brush or cotton applicator to the swollen and inflamed mucous membrane of the nasal cavities and especially to the distended turbinated bodies, followed by the application in the same manner of a 4 to 6 per cent. solution of cocaine, used rather more freely, and followed in a few minutes by the insufflation of a powder of cocaine, morphia and bismuth, or of cocaine, camphor and bismuth. Convenient formulæ are as follows :

Cocaine, mur.....gr. xxx.
Morphine, sulph.....gr. v.
Bismuth, subnit.....oz. 1.
M. Sig., use by insufflation.

Cocaine, mur.....gr. xxx.
Camphor.....drchm. 1.
Bismuth, subnit.....oz. 1.
M. Sig. :
Boric acid.....drchm. v.
Salol.....scruple, v.
Menthol.....gr. iv.
Cocaine.....gr. x.

The atropia and cocaine causes a speedy contraction of the swollen tissues and checks the profuse discharge, and the patient is at once rendered comfortable. In the course of an hour the difficult nasal respiration and attending symptoms return, and consequently the patient should be

provided with the powder and directed to use it when these symptoms are manifested. A few applications will, in the great majority of cases, entirely overcome the attack, A patient should never be given a prescription for cocaine without indicating to the druggist that it is not to be renewed. It is even a better plan to furnish the cocaine to the patients, not allowing them to know what they are taking, when there will be no danger of contracting the cocaine habit.

In some cases the cold is manifested, not only in the head, but in the chest as well, as will be indicated by a trying, frequent cough and a sense of constriction in the lungs. In these cases, in addition to the measure suggested, a hot water compress should be applied to the chest and well covered. Too frequently a cold is allowed to continue for two or three days before a physician is called in, and then the "golden opportunity" of "breaking the cold" is past.

While a simple cold is not in itself a serious or dangerous matter, yet it should never be neglected, on account of the consequences that may follow. It should be remembered that the proper time for successfully treating it is in the early stages.—*Colorado Climatologist.*

THE OPENING OF THE NEW BUILDINGS OF THE MEDICAL FACULTY OF McGILL UNIVERSITY.

The formal opening of the new buildings of the Medical Faculty of McGill University took place on the 8th of January. The ceremony, which was held in lecture room No. 3, was presided over by Vice-royalty. The attendance was very large, including a great number of the leading citizens of Montreal and the surrounding country. Many medical men from the city and different parts were also present. At 2.45 p.m. the Governor-General and Lady Aberdeen, accompanied by Captain Urquhart, A.D.C., and Mr. Hewitt, His Excellency's private secretary, arrived and was received by the Vice-Principal, the Dean and members of the Faculty in the library. From here a move was at once made for the large lecture room, and the proceedings began by His Excellency, who as visitor to the University presided, calling upon the Rev. Dr. Cornish to open with prayer.

Dr. Craik then delivered the following address on the History of the Faculty from its beginning in 1824 up to the present time.

Dr. Craik, Dean of the Faculty of Medicine, gave a very interesting account of the history of the Faculty. He said:

Your Excellencies, Governors, Vice-principal, Fellows of Corporation, Professors, Graduates, Undergraduates, Ladies and Gentlemen,—It is with a feeling of pleasure, amounting almost to exultation, that I rise as the representative of the Faculty of Medicine of McGill University, to welcome you as friends come to rejoice with us, at the completion and opening of our new and enlarged Buildings. To you, my Lord, and to Her Excellency the Countess of Aberdeen, we would beg to offer a special and a grateful welcome, inasmuch as you have been graciously pleased to honour us by your presence. We recognize in this act of

kindness, another proof of that large-hearted sympathy, which has caused Your Excellencies to interest yourselves in so many phases of Canadian life, and which has won for you the love and respect of a loyal Canadian people.

And this is an occasion on which it is fitting that we should rejoice. It is cause for gladness, that the progress of our Faculty has been such as to make enlargement of our buildings an absolute necessity; and it is no less a cause for gladness, that, when the necessity for increased accommodation was actually barring our further advance, the barrier has been removed and our onward progress again made possible.

There is much in the history and progress of a School or University, which may not inaptly be compared to the life of an individual. There is a period of comparatively helpless infancy in both; and if this period be survived, it is likely to be followed by one of growth and development, leading, under favourable conditions, to a more or less vigourous maturity, and to a long career of activity and usefulness. But there is also a reverse side to the picture. The Institution, like the individual, may die in its infancy from inherent weakness, from injury or from neglect; or it may drag on for a time a feeble existence, till it ultimately dies from continued stress of circumstances, or from the habitual neglect or ignorance of the laws of life and health, which apply no less to institutions than to living men and women. Let us see how far the picture will serve to illustrate the history and progress of our own School.

Soon after the opening of the old Montreal General Hospital in 1822, more than seventy years ago; four of its attending physicians, Drs. Robertson, Caldwell, Holmes and Stephenson, all of them graduates of Edinburgh University, being impressed with the necessity for providing medical instruction in this country, for students who might find it impossible to seek their education abroad; took steps to establish a medical school

in Montreal, after the model of the Medical Department of the University of Edinburgh, and bearing the same relation to the Montreal General Hospital in its clinical work as that of the Edinburgh Medical School to its Royal Infirmary.

After negotiations continued through 1822 and 1823, the School was successfully organized under the name of the "Montreal Medical Institution," and in the autumn of 1824, it commenced its active work, in a small wooden building then standing on Place d'Armes, on what is now the site of the Bank of Montreal. The number of students during the first session was 25, and the whole of the work of teaching was done by the four men whose names I have already mentioned, the departments of Anatomy, Physiology, Chemistry, Pharmacy, Practice of Physic, Midwifery and Diseases of Women and Children, Materia Medica, Surgery and Botany being divided as evenly as possible among them. The name of Dr. Loedel was at first associated with the others as Lecturer on Materia Medica, succeeded after a few years by that of Dr. Lyons, but neither of these gentlemen seems to have taken any active part in the work.

But the arduous and responsible work was not only done by the other four men, but it was well done; so well that it received official recognition at Edinburgh, two of its sessions counting for one, but giving it, nevertheless, a status as one of the publicly recognized Medical Schools of the day.

The work of the School thus begun in 1824, was continued until 1828 with scarcely any change; the establishment of a French School of Medicine in the interval, having drawn away a number of students and prevented the anticipated increase. The average attendance for the first five years was barely 26, or only one more than in the opening year. This result was disappointing and discouraging, and, with less resolute men at its head, the Montreal Medical Institution would probably have died and been forgotten. But it did not die, and it has

not been forgotten. Not only did it continue to live, though under another name, but it was instrumental in preserving the life of its future foster mother, the University of McGill College, which was then in imminent danger of being strangled, almost at its birth, by adverse litigation.

It had become necessary that the University should assume active teaching functions within a certain date, then fast approaching, in order to secure its McGill endowment; and being unable to provide the necessary staff of teachers in the other Faculties, the struggling Medical Institution was asked, and gladly consented, to join the University as its Faculty of Medicine, and the crisis in the life of the University was thus successfully tided over.

The session of 1829-30 was the first under the new conditions, and it opened with 30 students. Its material resources, however, were not in any way increased, and for the next ten years its condition was, if anything, worse than before; but it was now the Faculty of Medicine of a University, acting by authority of a Royal Charter, and its battles were afterwards to be fought under its banner. This was no mean advantage. It gave prestige and courage to men who must otherwise have been worn out in a hopeless struggle; and gave distinction to the results of their labours by enabling them to procure for their successful students, the honour of a University Degree.

The political troubles which culminated in the Rebellion of 1837-39, had at that time begun to disturb the community, and interfered considerably with the progress of the School. It was obliged to close its doors from 1836 to 1839, until the political storm had blown over; reopening its classes in 1839-40 with an attendance of 28, a number actually less by 2, than when its connection with the University began ten years before.

Other changes soon followed the joining of the School to the University. Edinburgh at once accepted the Certificates of the Faculty on their face value at par, and the other British Schools almost immediately followed its lead.

In 1833 the first break in the ranks of the four veteran leaders occurred, by the death of Dr. Caldwell from fever The gap was temporarily filled by the appointment of Dr. Racey, and on his removal to Quebec in 1835, the late Drs. George W. Campbell and Archibald Hall were added to the staff, the former Lecturing on Surgery and Midwifery, and the latter on Materia Medica.

It was not until the session of 1841-42 that the real growth of the School began, when it opened with 39 students; and it is gratifying to know that three out of the four original founders, had the satisfaction of realizing it: for before the beginning of another session, two more of them had fallen in the fight. Dr. Stephenson died in 1842, and Dr. Robertson's health gave way to such a degree as to necessitate his retirement from active duty, his death occurring in 1844.

The filling of these vacancies in 1842 led to extensive changes in the Faculty, with a redistribution of Lectureships, amounting almost to a reorganization. Dr. Holmes took Practice of Physic and Dr. Hall took Chemistry, while there were brought into the Faculty, Dr. McCulloch in Midwifery, Dr. Bruneau in Anatomy, and Dr. Sewell in Physiology and Materia Medica. In 1845 Dr. R. L. MacDonnell was brought in, to preside over the new department of Institutes of Medicine; Dr. Fraser to take charge of the new department of Medical Jurisprudence; and Dr. Crawford to assume the duties of still another new department, Clinical Medicine and Surgery. Dr. Papineau was also brought in to relieve Dr. Holmes in Botany. In or about this year also, Dr. Scott was appointed Demonstrator of Practical Anatomy. Further extensions were made in 1849, when Clinical Surgery was separated from Clinical Medicine, Dr. Crawford retaining the former, while Dr. MacDonnell assumed charge of the latter, only to be replaced on his removal to Toronto in 1850, by Dr. Sewell.

I have dwelt somewhat in detail upon these changes, not so much on account of the personnel of the appointments;

but because they serve to mark the growth and development of the Faculty, in its efforts to keep abreast, and even in advance, of the progress of Medical Education on this continent.

But the growth and development of the School, was not only in the direction of the increase in the number of teachers, or of the subjects taught; but also in the additional time devoted to the preparation of the students. Almost from the beginning, the sessions were made six months' sessions, instead of sessions of four and a half months; and almost, also, from the beginning, the obligatory course of study, was changed to four years instead of three; and in this way the Faculty succeeded in establishing a reputation for thoroughness, which has stood it in good stead up to the present day.

I have already stated, that at the opening of the Medical Institution in 1824, the Lectures were delivered in a wooden building on the site of the present Bank of Montreal. Some time afterwards, the School was removed to a brick building, still standing, on St. George street near the corner of Craig. In or about 1845, the Faculty took possession of quarters in the Central Building of the University, now occupied by the Faculty of Arts, and continued to occupy these premises, until its removal to Coté street in 1851. Of the precise dates of the removals to St. George street and to the University Buildings, I am not as yet, in a position to speak with certainty: for the early records of the School and Faculty, are not as complete in detail as they might have been; but the dates of the appointments and other changes, as I have given them, are from the records, and may, I think, be relied upon. Of the dates and changes after 1850, I can speak with confidence from personal knowledge, for my connec- with the Faculty began, as a student, in that year, and has continued almost without interruption, until the present time.

Up to 1850, the increase in the number of students had

not been great. Commencing in 1824-25 with 25 students, the number, after twenty-five years, in 1849-50, was only 44, an increase of less than one in each year. From this time, however, the reorganized and strengthened departments, began to attract more students, and the session of 1850-51 opened with 53.

In 1851, the St. Lawrence School of Medicine was started, in opposition to our Medical Faculty. It had a strong staff of teachers, and its class-rooms were in the heart of the city. As the University buildings were at that time,—more than forty-three years ago,—thought to be rather remote from the centre of the city; it was feared that the more central position of the new school, would place our Faculty at a disadvantage; and after careful consideration, it was decided to move the classes once more back to the city. As no University funds were available to assist in this matter, three members of the Faculty, themselves advanced the money; and a substantial brick building was erected in Coté street, in time for the session of 1851-52, where the classes opened with 64 students.

This building, which is still standing in Coté street, served the purposes of the Faculty for twenty-one years: and in it occurred many of the changes and much of the progress, which have left their mark npon the history of the Faculty. It was here that, in 1852, all the Lecturers in the Faculty were promoted to the rank of Professors, Dr. Holmes alone having previously, I believe in 1843, been appointed the sole Professor. It was here also that, in 1854, Dr. Holmes was made Dean, the first in connection with the Faculty. Here also we had the happiness of receiving amongst us, as Professor of Botany and Zoology, our much loved and gifted Principal, Sir William Dawson, now retired, to whose great ability, zeal and untiring industry, the University, in all its departments, owes so much. Here in 1854, it was made optional with the student, to divide his examinations into Primary and Final, and here also, a department of Practical Chemistry

under Dr. Girdwood, was established in 1870, though it was not for some years later, that a Faculty Chemical Laboratory was provided. Here also in 1870, an optional Summer Session of three months was established, and in 1871 an optional course in Hygiene and Public Health, under the late Dr. George Ross, which was converted into a Professorship under Dr. Godfrey in 1875. During the twenty-one years of the occupancy of the Coté street Building, the number of students increased from 64 in 1851-52 to 139 in 1871-72; but the attendance in several of the years had been above 170, and in one year, 1866-67, it had reached 184.

But time will not permit me to dwell with as much of detail, upon the remaining years of the history of the Faculty; and I must content myself by referring only to the more important changes and occurrences of the last twenty-two years.

Owing to the increased number of students and the extension of the Curriculum, as well as to the growth of the Museum and Library; the Building on Coté street had for many years been inconveniently crowded; and the Faculty had been casting about for means of acquiring better accommodation. The opposition of the St. Lawrence School of Medicine had long since come to an end: indeed, the School itself could scarcely be said to have been born before it began to die; and the last vestiges of it had disappeared after a few years. Moreover, the city had spread greatly in the direction of the University Buildings; and, influenced chiefly by the advice of Sir William Dawson, the Faculty, in or about 1870, applied to the Board of Governors to be received again within the precincts of the College Grounds. There was at that time no available building on the College Grounds, of sufficient size to accommodate our growing Faculty; but the Governors generously offered to erect and place at our disposal, a Building suitable to our needs; and their offer being gladly accepted, the substantial Stone Building forming the front portion of the

present Block, was erected by them in 1871 and 1872, at a cost of $27,000, and placed at the disposal of the Faculty. The Building was unfurnished, and without equipment of any kind: but, nothing daunted, the members of the Faculty proceeded to furnish and equip it, from their own individual resources, at an expense of several thousand dollars; and our classes were opened in it in the autumn of 1872, with an attendance of 154.

Dr. Fraser, Professor of Institutes of Medicine, died in 1872, and Professor Drake, who had occupied the Chair of Clinical Medicine since 1868, was transferred to the Chair of Institutes of Medicine; a position which he filled with eminent ability. In 1874, owing to the failure of the health of Professor Drake, the position of Lecturer on Institutes of Medicine, was conferred upon Dr. William Osler, one of our own graduates: then just returned from a two years' sojourn among the great Schools and Laboratories of Europe: and in 1875, on the permanent retirement of Professor Drake, Dr. Osler was promoted to the vacant Chair. The assumption by Dr. Osler, of the duties of the department of Institutes of Medicine, was immediately followed by active Laboratory work, in Physiology, Histology and Pathology: and it is due to Professor Osler to say, that to the contagious influence of his example. together with his great ability and enthusiasm, is largely due, the greatly increased proportion of practical work, in all departments of the Faculty.

But the increase of Practical and Laboratory work in many departments, though it added greatly to the efficiency of the teaching, added also greatly to our expenditure; and we soon began to find ourselves crippled for means to carry on the work; and to add to our embarrassments, in 1882, we suffered what seemed to be an irreparable loss, by the death of our Dean, the late Dr. George W. Campbell; whose great influence and ability, for upwards of forty years, had been the mainstay of the Faculty.

But the darkest hour is often just before the dawn; and

while our Chancellor, Sir Donald A Smith, was listening to a eulogy on his late friend Dr. Campbell, and a recital of our needs, by the late Dr. Howard, he resolved to come to our rescue in a most effectual way. He offered to confer upon the Faculty no less a sum than $50,000, on condition that a like sum should be collected from the other friends of the University. I need not say with what alacrity we set about the collection of the stipulated sum; nor with what readiness and liberality we were met by many of our citizens; nor need I allude to the liberal contributions given by nearly every member of the Faculty. It is sufficient to say that the amount was soon collected and paid: Sir Donald's contribution was also paid over, and in 1883, the Faculty found itself relieved from its embarrassments, by a handsome Endowment of $100,000.

But our troubles were not ended, if, indeed, in some respects, they can ever be expected to end. Our session opened in 1883 with 200 students; and with the increased space rendered necessary by the enlargement of our Laboratories, our Building was full to overflowing. In 1884 the number of students increased to 227; and it became necessary therefore, to make immediate provision for increased accommodation. The Governors were, unfortunately, without funds to help us, and our only alternative, therefore, was to draw upon our Endowment for the enlargement of our buildings. This we did, with the consent of the Governors, to the extent of $23,000; and in the autumn of 1883, we opened our session with greatly increased accommodation, and a class of 234 students.

In 1884, we had the misfortune to lose the valuable services of Professor Osler; the University of Pennsylvania having offered him the Chair of Clinical Medicine. This offer, opened up to him so large a field for advancement in his profession in every way, that he was fain to accept it; and we parted with him with good wishes, but with very great regret.

In 1889 the Faculty suffered another great loss in the

death of its Dean, the late Dr. R. Palmer Howard. Dr. Howard's marked ability, untiring industry, unwavering integrity and unbounded popularity with all classes made him a man who could ill be spared; and the loss of his strong personal and professional influence for good, will be felt in the Faculty and in the community, until his generation shall have passed away.

Two other lamentable deaths in the Faculty, followed that of Dr. Howard in quick succession. Dr. Richard L. MacDonnell, Professor of Clinical Medicine, died in 1891; and Dr. George Ross, Professor of Medicine, and Vice-Dean of the Faculty, died in 1892. Of these two, it may safely be said: that there have probably never been in the Faculty, two men of greater promise or usefulness; and the loss of them, following, as it did, so closely upon that of Dr. Howard, was the cause of great grief and anxiety.

The late Dr. Howard had greatly at heart, the establishment of a Chair of Pathology, and lost no opportunity of pressing its claims upon friends of the University. It was not, however, until two or three years after his death, that, in 1892, the Faculty succeeded in obtaining what had been so long desired, by the appointment by the Governors, of Dr. Adami, from Cambridge University, England, to the newly established Chair of Pathology. With reference to this appointment, it is only necessary to say, that it places our Faculty, at least on a par with the best Schools of this continent, in this important department.

Other extensions of the Curriculum were made from time to time. Dr. Frank Buller was made Lecturer on Ophthalmology and Otology in 1878, and was promoted to the rank of Professor in 1883. A Chair of Gynæcology was also established in 1883, with Dr. William Gardner as its first occupant; and a Department of Laryngology under Dr. George W. Major, was commenced in 1882, and erected into a Chair in 1893, with Dr. Major as its first Professor.

In 1894, Summer Sessions were abolished, and the Ordinary Session of six months, was changed to one of Nine Calendar Months.

From 1884 to 1889, the number of students remained nearly the same, the number in 1888-89, being 227. In 1889-90 the number increased to 256; in 1890-91 to 261; in 1891-92 to 291; and in 1892-93 the number reached 312.

We were again face to face with the old difficulty of overflowing buildings, and had again to look for the means of providing increased accommodation. Our difficulties in this instance, were even greater than in 1885; for to afford room for additional buildings, it would be necessary to purchase the land adjoining the college property, and which was valued at $25,000. The required new buiidings were estimated to cost $30,000, making a total of $55,000 required to serve our purpose. We laid our case before the Board of Governors, asking them to acquire the necessary land; and to allow us to borrow from our Endowment Fund the $30,000 required to erect the necessary buildings. What was our surprise and delight, when Mr. John Henry Molson, (now our senior Governor), with scarcely a moment's hesitation, asked to be allowed to relieve us of the whole burden, by placing at our disposal the munificent sum of $60,000, a sum greater by $5,000 than the whole estimated cost?

It is difficult to find words fitly to characterize such princely generosity. To it we owe the erection of the Building in which we are now assembled, and the ground upon which it stands; and to it also, we owe the comfortable accommodation of the rapidly increasing number of students; for last year the number was 350, and this year it has already reached 400.

It is matter for regret that Mr. Molson is not with us to-day, to receive in person the thanks of the Faculty; but he is well represented by Mrs. Molson,—that part of him which he himself is proud to own as his better half; a Lady from whom the University has also in other Departments received rich Benefactions; and our thanks could not possibly be conveyed to Mr. Molson through a more welcome channel.

It remained only for our Chancellor, Sir Donald Smith, at the Convocation with 1893, in one of his many acts of magnificent bounty, to fill our cup full to overflowing, by the endowment of the Chairs of Pathology and Hygiene, with the sum of $50,000 each; thus placing our Faculty, so far as can be foreseen, in a position to carry on and to extend its work without financial anxiety.

I fear that I have wearied my audience, by my long and somewhat detailed account of the origin, the struggles, the growth and the ultimate triumph of our Faculty; but I have thought that on an occasion such as this, the History should be made fairly complete; and I shall only ask of you, to bear with me a minute or two longer, while I endeavour to point its moral.

We may be asked, what have been the secrets of our success? There have been no secrets. We have succeeded, because we have tried to deserve and to achieve success; and when taxed beyond our powers, well tried friends have helped us; and we have been guided by those principles, which should always command success in every worthy enterprise. We have, with honest purpose, taken advantage of such circumstances, as were useful and necessary in our work. The large field for clinical work and observation, which our school has enjoyed since its commencement, in the wards of the Montreal General Hospital, has been an important factor in our success; and supplemented, as it now is, by an equally large field in the wards of the Royal Victoria Hospital, our Faculty and Students have at their command, resources in this direction which cannot anywhere be excelled. Moreover; the interests of the Faculty have generally been guarded by practical and far-seeing men; men not merely learned in their profession, but endowed with sagacity, administrative ability and business tact; qualities without which, no enterprise, however highly favoured, can long hope to succeed. It has endeavoured also, to supply to the community, that of which it was really in need, and which was, therefore, always in demand; and

has striven to make its graduates, sound, sensible, well-trained and well-equipped men; fit to be entrusted with human life and health. It has never allowed itself to lower its standard, below that which would test the powers of average men; nor to raise it so high, or to hedge it about with such unreasonable requirements, as to keep out those, that, with patient and intelligent help, will often from dull beginnings, develop into the brightest ornaments of the Profession. And, lastly, we have always had faith in our Faculty and in our University. When we have met with misfortunes, they have not made us unduly despondent; nor when success has smiled upon us, has it made us arrogant; but we have kept steadily in view, the time when our Faculty should leave doubt and uncertainty behind, and look forward to an assured and prosperous future. We hope and trust that that time has arrived; and we hope also, that the future of the Faculty and of the University, shall be to the past, as the bright rays of the noonday sun, to the feeble and uncertain light of a beclouded moon.

I have now the honour to present to Your Excellency, on behalf of Mr. Molson, and on behalf of the Faculty of Medicine of McGill University, this key. It is only a modest little key, but in a figurative sense, it may do great things; if it shall serve to open our doors to public confidence and appreciation; and to open them also, in sending out for generations to come, able and worthy graduates; to carry health and help to suffering humanity, and to be a source of pride and honour to their Alma Mater.

His Excellency, who was loudly cheered on rising, then spoke as follows:

The opening remark of the address to which we have just listened reminded me that in order adequately to describe the component parts of this distinguished and representative audience quite a considerable category of designations would need to be employed. Unfortunately I omitted to take a note of the list, and, therefore, I shall adopt the safe

course of addressing the audience under the time honored and comprehensive title of ladies and gentlemen.

To-day we are setting up one of the landmarks of the progress and extension of this University, and that, too, in a department which in the most eminent and essential manner entitles a seat of learning to the noble designation of University, because this great science, this great art which we are celebrating to-day is emphatically of world-wide application, and is limited only by the needs of the human race. So wide is its scope, so numerous are its ramifications, that it is indeed necessary to employ a common language, recognized and understood by all its members, in order that the application and administration of the science may be duly provided for and carried on.

Well might the dean say that the occasion is one for thankfulness, and I feel that, having the honor of being the official visitor of the University. I am only voicing the thoughts of the unofficial visitors who are here in such large numbers when I say that we heartily congratulate the University and those on whom the management of its affairs especially devolves, upon this interesting and notable occasion. Those who belong to the medical profession may well be proud of it, and we who are outside of the profession—outside, at least, except in the important particular of furnishing the material upon which its votaries are entitled to perform their experiments, we, too, are proud of the profession, not only because of its fame and utility, but because of the help and encouragement which it gives to the development of all that is unselfish and noble and heroic. That is a theme which might well be enlarged upon, but the mention of which is like a truism. On such an occasion as this we may at least recall, in passing, the grounds for these feelings and expressions of thankfulness and congratulations the occasion itself naturally calls for, and while I am touching upon that aspect of the matter I cannot refrain from referring to the contribution

which has been made in the literature of to-day to this particular topic; I mean the nobility of the medical profession. I refer to a work which those who have already read it will admit may be counted as a classical contribution to English literature, the book called "Beneath a Bonnie Briar Bush," Characters appear in that book which we shall remember and claim as friends, and among the most eminently attractive of them is the parish physician of the district which the story describes, Dr. William Maclure. The narrative brings out in his character the typical qualities which we look for in the true physician, and one of these I cannot help alluding to. The life of a poor woman, the wife of a labouring man, is despaired of. The husband, who has rarely been known previously to open his mouth in speech, is moved by his distress to make an earnest and touchingly urgent appeal to the doctor to do something to save his wife. The doctor dares not give him any encouragement; he knows no means by which her life can be saved except by an operation by a famous and skilful surgeon, but that is a matter of a hundred guineas, and where is the fee to come from? He finds, however, a farmer—a Scottish farmer, too—who is prepared to provide the necessary payment. The next morning, in answer to a telegram, the Queen's surgeon appears, and the two doctors drive to the cottage. But a river has to be forded; it is in flood, and in passing through it the great surgeon, though no coward, is affected by the terrific surging, and swirling of the waters over the ford, and protests against going further. "We shall be lost," he cries. His companion, the country doctor, replies, "Lost you may be sooner or later if you shirk your duty, but cross the river this day you shall." They do cross it, and the operation is performed with success. When the doctors parted the poor people are delighted by hearing the great surgeon say to the local doctor: "I am proud to have met you; you are an honor to our profession." The author adds that the surgeon declined to take the fee, but, perhaps, this was an instance of mere eccentricity.

The dean of the faculty, in his most interesting and admirable *resumé* and description of the various events which have culminated in this noble occasion, alluded to the fact that troubles will occur, even in connection with the medical department of a University. I presume that the Dean referred, not to medical troubles, but to financial troubles in relation to the ever-increasing needs of a great institution. We have already had such a splendid illustration of noble generosity, especially associated with the names of Mr. Molson and Sir Donald Smith, that we can but speak in terms of thankful congratulation, and in terms of cordial appreciation such as have been so appropriately addressed to the lady (Mrs. Molson), who has graced the occasion with her presence to-day. But, after all, it may not be out of place to remember that the work has not reached finality. There may be the need and the opportunity for future benefactions. The University is not grasping or voracious; it only asks for what is needed. It indeed occupies the attitude which was well expressed by a worthy Scotch woman, who when asked what her requirements for a livelihood were, replied that she would be content with "a competency," and, when the further question was put, "what do you mean by a competency?" answered, "just always a little more than I have got"—a most reasonable and natural desire on the part of any active University.

We are looking forward, I am sure with great interest, to the next phase of these proceedings. I suppose we ought not to have grudged Dr. Osler to Baltimore; as a matter of fact probably we do grudge him; but if within the borders of the United States they could not find the man required for such a post, it was perfectly natural and reasonable that they should come to Canada. That is a principle which I think may always be safely adopted,—that where a person is required for any particular post, you should search not only in the country in which the institution exists, but the world over for the right man to fill the right place. I am sure that in the case of Dr. Osler

they have succeeded, and we may at least claim the satisfaction of the fact that Dr. Osler, whose career we are sure will become more and more brilliant, went through the stages of his academical life in the University of McGill.

I cannot conclude even these few informal observations, addressing as I am among the audience a band of young men to whose career we look forward as one which will be a credit to themselves, their University, and their country, without referring to the fact that we have had brought before us during the past few weeks a notable and eminent example of all that goes to make up a noble career—a stimulus and an incentive, especially to young men equipping themselves for the battle of life, to that devotion to duty and that sacred ambition which seeks, no mere honor and distinction, but the welfare of the human race, and of the country in which God has placed us.

Sir William Dawson being called by His Excellency said that for thirty-eight years he had enjoyed the privilege of following with interest and pleasure the growth and progress of the Medical Faculty, and of taking a certain share in promoting its interests in connection with the University. He had seen its growth from the time when there were 50 or 60 students in the old brick building on Coté street to the present, when there were 400, with the magnificent class-rooms and laboratories which were opened that day. This great growth appeared to him to have been fully merited by the earnestness and the ability of the Deans, who had control of the Faculty, and their colleagues, all through that time. He did not think that in any educational work with which he had been connected he had ever met a more earnest and devoted body of men than those in the McGill Medical Faculty. Another element which he thought had contributed very much to the recent benefactions to the Faculty was the character of the graduates it had been sending out. It had produced many distinguished professional men, of whom Dr. Osler might be taken as a type and a most brilliant example. It had

also sent out a very large number of men who might be termed ordinary and useful practitioners who, though little known to fame beyond their own localities, were of priceless value to our country. Those who had lived in Canada for any length of time and had visited the outlying districts knew how much of the comfort of the people depended on the thoroughly well-trained medical men of the country. His Excellency had mentioned a touching Scottish example, but hundreds of such could be found in Canada. In this work of supplying able local practitioners the McGill Medical School, without disparagement to any other institution, had, he ventured to say, borne a very large share. The medical graduates of McGill were to be found in all parts of the Dominion and everywhere were regarded as trustworthy professional men. The medical student of to-day was the medical graduate of to-morrow, who was to be the most trusted adviser in the most serious crises of life and to spend his life in doing all that he could to mitigate suffering and to save life. Even if a medical man's work were with him a professional work, it was a great and glorious mission, in which his heart, as well as his interest, had to enter, in order to make it the profession which it ought to be, and to ensure the greatest success. Sir William then congratulated Dean Craik on the event of the day and on the presence of the Governor-General and Lady Aberdeen. He thought that they all had reason to congratulate themselves upon having been able to borrow their old friend Dr. Osler for a little while to speak on those original investigations in medical science which are doing so much to alleviate suffering and to prolong life, but which are still in their infancy and hold out the most inviting prospects to original research. He hoped that every student present would bear in remembrance and carry out in his life the great object of delivering man from being the victim and slave of his surroundings and of making him what his Creator intended, their lord and master. In this connection he need scarcely say that he fully con-

curred in the suggestions of the Vice-Principal with reference to the welding together of the Faculty of Arts and Medicine in such a manner that medical students and graduates might be better prepared to comprehend the scientific principles of medicine and to be leaders in the general enlightenment of the community.

THE

Montreal Medical Journal.

VOL. XXIII. FEBRUARY, 1895. No. 8.

OFFICIAL OPENING OF THE NEW BUILDINGS OF THE MEDICAL FACULTY OF McGILL UNIVERSITY.

We devote this month a considerable amount of our space to an account of the proceedings attending the official opening of the new buildings of the Medical Faculty of McGill University. To all our readers this account will be interesting matter. It will be especially so to the many hundreds of McGill graduates scattered over various parts of the world.

The able address of Dr. Craik tells in a very graphic manner the struggles, early and recent, which the Faculty has had to contend with since its foundation in 1829.

Among many factors that have contributed to the singularly successful upbuilding of the Medical Faculty of McGill University, we would mention in the first place that the establishment of the school was not founded for any selfish object, but to afford on opportunity to the young men of the country to acquire a solid education in medicine, and thereby meet the pressing wants of a poor but rapidly growing colony. From the very first efficiency was the watchword. Futher, the Faculty has always been fortunate in having at its head able, wise and energetic men.

The progress of the Faculty owes also much to her long

list of graduates, who in various parts are filling positions of honour, and who always remain true and loyal sons of their Alma Mater.

The success of the University in general, and the Medical Faculty in particular, is to all medical graduates at least, a matter of personal concern. Much of the fame of any University comes not from the work of the professors, be it ever so good, but rather from the quality of work performed by the graduates in their different spheres.

For some time previous to the semi-centennial celebration in 1882 of the foundation of the Faculty, it was recognized that a new condition of things was arising in connection with medical education. that the day for laboratory instruction in all possible departments was at hand, and that the future instruction should be more practical and less didactic.

The late Palmer Howard, in his address on the occasion, called very special attention to this subject and pointed out the necessity for endowments, in order to enable such methods of instruction to be carried out. His appeal for help was at once responded to by Sir D. A. Smith, who offered the sum of $50,000, provided the Faculty collected a similar amount. This was soon an accomplished fact and the Faculty were, with the $100,000, at once placed in a position to give a course more in conformity with modern requirements. The splendid generosity of Sir Donald A. Smith was the first instance in this country, or elsewhere, of the recognition of the claims of medicine to support through private generosity.

As referred to in Dr. Craik's address, although the first, this has not by any means been the last generous recognition on the part of Sir Donald A. Smith.

Through the great liberality of Mr. J. H. R. Molson, the Faculty have again been enabled to further extend their means of meeting the ever advancing requirements of modern medicine.

DR. OSLER'S ADDRESS.

On account of Dr. Osler's varied and brilliant gifts, and from the distinguished position he so worthily fills as a teacher and thinker in medicine, he has naturally been called upon on many occasions to deliver public addresses at medical schools and associations throughout the continent. Many of these addresses possess great merit, but we think his latest effort is in many respects the ablest of all. It is brimful of wise and stimulating sayings. In a few words, a rapid review is given of what medicine has done to prolong life and relieve human suffering and misery. The great advance of the immediate past is an index of what the future has in store. A generous tribute is paid to the memory of his former teachers and colleagues who have passed away. The development of research is pointed out as, after all, the greatest function of a University if it is to fulfil its highest work.

The whole address is full of vigourous and advanced thought, worthy of the speaker and the occasion. It is refreshing reading in these days when quackery in its various cloaks is so rampant and when people, even of the highly educated kind, bow before it.

Obituary.

DR. ALFRED L. LOOMIS.

We greatly regret to have to record the death of Alfred L. Loomis, M.D., LL.D., of New York.

Dr. Loomis died at his residence in New York on the 23rd January from pneumonia.

For many years he has occupied a leading position in New York as a consulting physician and was well known, through his writings, which especially deal with diseases of the respiratory system. He was the author of a work on "Physical Diagnosis," which has run through ten editions: of a text book of "Practical Medicine," published in 1884; of a special work on "Diseases of the Respiratory Organs, Heart and Kidneys."

For upwards of 30 years he was physician to Bellevue Hospital. He was Professor of Medicine in the University of New York since 1868.

Last year he was President of the Association of Physicians, one of the highest of the professional honours which can fall to the lot of an American physician.

Medical Items.

—A very grave form of measles is epidemic in some German cities at present, the mortality from this disease alone amounting in some places to more than a tenth of the whole.

—Professor I. Burdon Sanderson, hitherto Professor of Physiology in the University of Oxford, has been appointed to succeed Sir Henry Acland as Regius Professor of Medicine in that University.

—Wölfer, of Graz, succeeds Gussenbauer in the chair of surgery in the German University of Prague. Wölfer, formerly assistant to Billroth, is best known to the profession generally as the author of a very able work on the diseases of the thyroid gland.

—Dr. Hermann Weber has bequeathed the sum of $12,500 to the Royal College of Physicians, London, to found a prize for the best work on pulmonary consumption. The work may deal with any phase of the subject—etiology, pathology, prevention or treatment. The prize has been founded in reverence for the memory of Dr. Parkes.

—The *Colorado Climatologist*, a neatly printed and well edited journal, is the latest addition to the medical periodicals of America. As its name implies it is devoted chiefly to literature bearing on the influence of the Colorado climate on the course of pulmonary tuberculosis. It is edited by Drs. Charles Manly and J. N. Hall, of Denver, Colorado.

—The Ontario Medical Council elections have resulted in a considerable change in the members of that body. It is a matter of regret that the new council will be deprived

of the experience and knowledge of such men as Dr. Philip, of Brantford ; Dr. Ruttan, of Napance, and Dr. Bergin, of Cornwall. The latter was a member of the Council since its inception in 1870. His intimate acquaintance with professional education, acquired through a prolonged experience, made his name a power in the deliberations of the council. Among the new members that much may be hoped from we would mention Dr. Graham, of Brussels, and Dr. Beddick, of Winchester. Both of these gentlemen have for years occupied prominent positions as practitioners, and both have taken a great interest in all that relates to the progress of our profession.

A FUND FOR A BRONZE STATUE TO CHARCOT.—The pupils and former associates of Charcot in Paris and throughout France are engaged in raising a fund for the erection of a bronze statue of him in the Sàlpêtrière. This movement is receiving cordial and material support in Germany, England and Italy.

It has therefore seemed desirable to the Neurological Societies of New York and Philadelphia that the profession in America join in this testimonial, as an evidence of the eminent services of Charcot in neurology and medicine. The undersigned have been appointed a committee to bring the matter to the attention of the profession and to receive contributions, which will be duly acknowledged and forwarded to the central committee in Paris.

We sincerely hope that the profession in Canada will contribute their mite to this fund.

It is requested that all who desire to contribute to the success of this undertaking send their subscriptions to the members of the committee nearest to them or direct to the treasurer, Dr. C. A. Herter, 819 Madison avenue, New York.

E. D. FISCHER, M.D., E. C. SEGUIN, M.D., M. A. STARR, M.D., C. L. DANA, M.D., C. A. HERTER, M.D., for New York.

S. WEIR MITCHELL, M.D., WHARTON SINKLER, M.D., CHAS. K. MILLS, M.D., for Philadelphia.

J. J. PUTNAM, M.D., P. C. KNAPP, M.D., for Boston.
WILLIAM OSLER, M.D., for Baltimore.
ARCHIBALD CHURCH, M.D., for Chicago.
C. H. HUGHES, M.D., F. R. FRY, M.D., L. BREMER, M.D., for St. Louis.
JAMES STEWART, M.D., for Montreal, Canada.
E. B. ANGELL, M.D., for Rochester.
J. W. PUTNAM, M.D., for Buffalo.
THEODORE DILLER, M.D., for Pittsburgh.
HOWELL T. PERSHING, M.D., for Denver.
J. D. HIRSCHFELDER, M.D., for San Francisco.

THE MONTREAL MEDICAL JOURNAL,

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

Communications are invited on subjects of interest to the Medical profession, whether in the form of original articles, addresses, case reports or correspondence. Those desiring reprints must state so on the manuscript.

All communications to be addressed to

ROBT. C. KIRKPATRICK, M.D.,
163 Mansfield Street, Montreal.

Subscription price, including postage, $2.00 per annum, in advance. Single copies, 25c.

The volume commences with the July number, but subscriptions may begin at any time.

Address

THE MONTREAL MEDICAL JOURNAL CO.,
Care of GAZETTE PRINTING CO.,
MONTREAL