

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.
- Additional comments /
Commentaires supplémentaires:

Continuous pagination.

- 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.

THE
MONTREAL MEDICAL JOURNAL:

VOL. XXIX.

AUGUST, 1900.

No. 8

Original Communications.

ON THE EDINBURGH TRADITION AND OTHER TOPICS.*

BY

J. G. ADAMI, M.D.,

Professor of Pathology, McGill University.

I had recently forwarded to me by Mr. W. B. Cannon—a medical student of Harvard—an article published in the *Boston Medical and Surgical Journal*, detailing what the writer regarded as an ideal method of teaching medicine.† The main feature of this method, and one that I must confess is attractive, is the application to medicine of the Harvard mode of teaching law. At Harvard instead of there being a course of lectures and quizzes upon the different branches of law, the heads of the different departments distribute written or printed statements of actual cases and by a certain day certain of the students are expected to have turned up or ferreted out the authorities bearing on the subject and are expected to argue the matter, pro and con, before the class. In short, the method is but a putting into practice during student days of what, if he does not sink to the level of a scrivener or lawyer's clerk, the law student will be called upon to do each day of his legal career.

You can understand the stimulus that this must be to the keen student. There is no longer the wearying grind at eviscerating and memorising text-books and lecture notes, but in its place an actual living study of the law. Mr. Cannon proposes a somewhat similar plan in medicine. "Do away," he would say, "with didactic lectures; in their place let the quondam lecturer distribute carefully compiled notes of actual cases, with clinical history, symptoms, course of the disease and treatment all noted; then let the student go to the library and diligently work away until from the data given he has made out his diagnosis; until he is able

* Being the Presidential Address delivered before the McGill (Undergraduates) Medical Society, April 13th, 1900.

† The Case Method of Teaching Systematic Medicine, *Boston Medical and Surgical Journal*, January 11, 1900.

from the authorities to substantiate that diagnosis, to discuss the treatment and prognosis, and to stand before the class and hold his opinion against the criticisms of his confreres and his professor.

In place of the haphazard study of cases as they happen to come into the wards, it would by this means be possible to group together cases of like nature and to give to the study of case reports, a systematic and progressive form, introducing thus that right perspective and appreciation of relative values which is the most important advantage of a course of didactic lectures.

It is distinctly an attractive scheme. The student finds himself puzzling—as daily he should find himself when he gets into practice—over the meaning of symptoms, their correlation, the treatment of disease and so on, instead of receiving instruction, and like the bird in the nest having his pabulum forced down his capacious maw by his elders. Under the guiding care of these elders he passes to the higher stage of fending for and feeding himself. In short, he learns how to extract the worm artfully and scientifically without either breaking it or dislocating his tail feathers.

This is Mr. Cannon's main idea. There are it is true some valuable garnishings in the shape of clinical lectures in the hospital amphitheatre, out-patient work and so on, which further complete the scheme.

Now, remembering that Harvard at the present moment is the educational centre of the United States where some of the most advanced and most interesting experiments in medical pedagogy and education are being carried out, it is safe to infer that in this article of Mr. Cannon we have what is regarded as a very great advance upon the methods now employed in the Harvard Medical School. But when we come to study this scheme a little more closely, we cannot but be struck by the fact that evidently at the present moment and in the supposed future as indicated by this scheme, the study of medicine is mainly theoretical and not practical—the young bird, that is to say, is given a picture of a worm and told to find out its name and how to extract it, just as at the beginning of the century when subjects were all too scarce, or, as is still the case I believe in Chinese medicine, the teaching of anatomy was, and is, by means of papier maché models and of diagrams, or as even at the present moment some unfortunates are supposed to be capable of embarking in private practice and attending the gentler sex in their moments of supreme agony after a course of extracting a leather doll from a leather model. Such and little beyond does this method resolve itself into. There is not a word said about the attendance in the wards and note-taking, from which I can only conclude that Boston is still in the unsatisfactory condition that used to be practically universal in the

States—the condition in which the medical student is debarred from entering the wards and there learning to study cases at first-hand.

I do not hesitate to say that it is just this studying of cases in the wards which has been the making of McGill, which has given our graduates their strong and assured position whenever they have gone into the States.

That I should dwell with so much force upon the value of ward work may surprise some of you, but you must not go away from here with the idea that I see no virtue outside of pathology, or that I believe that it is only by pathology that you will enter the heaven of good practice, of a practice which is honourable and ennobling, because the individual honestly feels that he consistently does his best. Rather, if I may digress for a moment, I strive to keep ever before me that my object as professor of pathology here, is not to train up a school of pathologists but to teach my subject to you who are to be practitioners, in such a way that thereby you shall be sounder practitioners; to teach you not the minutiae of individual diseased processes, but the principles which underlie those processes. In short, to train you in medical thought so that approaching a case in your student days, as in after life, you should be able to some extent to realise the meaning of the symptoms and the lesions which may be present, shall understand their relationship, shall be able to picture to yourself the disturbed condition in one or other organ underlying and causing the outward manifestations. My object, the object of all of us, is to aid in your development, not into automata, which happening upon a symptom or set of symptoms, immediately fit a sesquipedalian designation to the same and forthwith turn either to the recesses of your brain or to the last number of say, the *Muskegon Practical Therapist*, published by those distinguished wholesale druggists, Stark, Merkley & Co., to find therein the latest drug which is said to “touch the spot”—but into reasoning thoughtful physicians, who in the study of their cases as in the treatment of the same, employ *succus cerebri* as the first and greatest article of *materia medica*. And if at times it may seem to you that I go over deeply into certain apparently very secondary phenomena, don't think, gentlemen, that it is the phenomena themselves that I am after, but the principles they illustrate or elucidate.

And this—if I may continue to digress—I will say for pathology, giving you an indication of its value to the student and the practicing physician. Take the great medical men of Great Britain who have died within the last few years—the giants of their generation—men who have overtopped all their contemporaries, and what do you find? Well, gentlemen, it is to say the least instructive, that one and all, Andrew Clark, Paget, Roberts, Wilkes—and I could extend the list—at a time

when pathology was not the living subject it now is, first made their mark as pathologists and investigators. The greatness of these men one and all was founded upon pathology, the post mortem room, the laboratory and the museum and herein lay the secret of their power. In their knowledge of the actual appearances and relationships of diseased organs, they possessed a veritable X-Ray apparatus; recognising the outward and visible signs of disease, they had an immediate inward and spiritual vision of the diseased organs; they looked beyond the surface and from their experience they were able to form a correct mental picture of the lesions present; they knew surely from that same experience what associated lesions were likely to be present or to be developed, and armed with this knowledge, they fought, not with a hidden and distant, but with an unmasked and present foe, and in these days I need not advise you of all the greatness of the advantage that thus was theirs.

There is, I must confess, a considerable mixture of metaphors in these last few sentences of mine. However, you will grasp my meaning so let them stand. It is the fashion by-the-bye on the part of the purists to decry mixture of metaphors. I doubt though whether within certain limits the purists are not foolish in this matter. The object of language—of good language spoken or written—is not, save in the case of a diplomatist, to conceal thought, but on the contrary to translate vividly to the audience the ideas and sentiments present in the mind of the author. When Sir Boyle Roche of immortal memory rose in his seat and in his wrath in the Irish House of Commons to expose as he imagined a nefarious plot, had he been a purist and not an Irishman he might have stated—“Mr. Speaker, I smell a rat, I see him emerging out of the obscurity of his hole, but mark you, Mr. Speaker, I will exterminate the vermin,” or “Mr. Speaker, I smell a smell, see the mephitic fumes beginning to ascend beneath our very noses, but mark you, Mr. Speaker, ere they rise further I will disperse them and ventilate this House,” or again, “Mr. Speaker, it is a baneful flower that I smell, it is growing that I see it; see Mr. Speaker, it is about to open; but mark you, Mr. Speaker, I will yet nip it in the bud.” Had he used any of these metaphors he would have been as correct as a purist could desire and almost as unimpressive as the ordinary every day parliamentarian, for he would only feebly have conveyed his main idea to his audience. Who hesitates for a moment to understand, and be impressed by what he did say—“Mr. Speaker, I smell a rat, I see it floating in the air, but mark you, Mr. Speaker, I will nip it in the bud.”

Although, gentlemen, as you may infer from my lectures, I regard pathology as of singularly great importance to the medical student, nevertheless it has to be recognized that the success of our school and of

those we have sent out into the world has not so much been due to it as to the teaching in the hospital wards, to the actual study of cases at the bedside. Of this I have no doubt, and it will be a bad day for McGill when the demands of special subjects lead you to neglect the great clinical opportunities we possess here in Montreal.

Now it is not that by this bedside teaching you gain the proper "bedside manner," important though that be. "If manners maketh man," assuredly manners maketh the medical man—in a social sense. It is not that. Indeed, at the present time in our hospital training, education in the correct bedside manner is inevitably too much neglected; that manner, if it is not natural to the individual, can only be learnt by example and not by precept, and the old apprentice system, provided that the individual student were prenticed to a gentleman, taught the right manner in a way that the hospital cannot do. The leisurely and incidental but constant study of the individual practitioner which the system necessitated, moulded the manners of the apprentice in a way which the hospital system with its rapid passage hither and thither, can never attain unto, save it be in the case of the house physicians appointed to an individual physician or surgeon. At most the hospital system has the advantage that one has the opportunity to select this or that physician or surgeon as an example and with this one as ideal to mould oneself after his fashion. I can recognise in many a Bart's man the influence of Sir James Paget, can see how they have modeled themselves upon him, so that from him they have given a tone to the whole school; and not to come too near home, I have thought to recognise the influence of one still active, and very near to the hearts, at least, of McGill men, on those who have been under him.

But, as I say, this is not the main benefit of walking the hospital bright; the main benefit lies in learning the "approach;" how to take a case in hand; how to elicit the history, and still more how to proceed in an orderly and thorough manner to examine the various systems one after the other. No amount of teaching or talking, no didactic lectures can teach you these; you must by hard practice learn to use eyes, ears, fingers and instruments on the living case.

And now the question comes, how is it that all these years so long as anyone still living can remember, and yet longer, Montreal has been employing these means, while elsewhere on the continent until recently thorough clinical instruction and the free entry of students into the wards have been most exceptional? The advantages of the system are so obvious that it is difficult to understand why elsewhere this ward teaching has not been universal.

In part, this may be due to the democratic air of the States,

though I rather doubt it. In the old country there is more keenly the feeling that hospital patients are charity patients and as such may be delivered over to the student at the hospital as a return in kind, as it were, for the benefits conferred. But that spirit is largely wanting here in Canada also. The patient would appear to enter the hospital as a right and while he permits examination, he recognises no obligation on his part to submit to being studied and hammered and listened to by the tyro in medicine.

Something undoubtedly is due to the methods of conducting hospitals; most hospitals here have only secondarily become connected with medical schools and the governors of the hospitals have been opposed to the entrance of students into the wards upon the grounds of possible disorganization of the nursing system, of increased expense, and of fear of driving away patients and lessening the annual return of work done. Here in Montreal on the other hand, the founders of the Montreal General Hospital and earliest members of the staff were likewise the founders of the medical school, and as I shall point out, carried out the traditions of the training they themselves received in their youth, and arranged from the very start that the students should have entry into the ward. So too at the more recently founded Royal Victoria Hospital, one at least of the generous founders was, as Chancellor of the University, keenly interested in having the hospital closely connected with McGill and his daughter being married to the son of one of our late deans and one of the great pillars of support of our school, he was, and has for long been more especially interested in the Medical Faculty of the University.

And then thirdly and essentially the difference appears to me to be due to the fact that our Montreal school was developed by Edinburgh medical men, and from the first continued the Edinburgh tradition; or more correctly their scheme of teaching was upon the methods by which they themselves had been taught when students at Edinburgh. William Robertson, John Stevenson, William Caldwell and Andrew Holmes, who in 1823 formed the Montreal Medical Institution and who in 1829, when that institution became the Medical Faculty of McGill, themselves became the first professors in that faculty, were all Scotch. The Toronto school on the other hand was in the main founded by English graduates, and by those influenced by English methods, as were the older schools in the United States.

Prior to 1820, as you will find pointed out by Osler, in his memorable address delivered here before the British Medical Association, it was England rather than Scotland, or the European continent, which attracted the bright spirits from the United States to study in her schools after graduation—men who returning became the leaders of medical teaching

in the States. As Osler insists, John Hunter and St. George's Hospital especially influenced American medicine. One finds very few Macs among the earlier leaders of American medicine. I can only recall Ephriam MacDowell, the first ovariotomist, and he gained his inspiration, it may be added, in Edinburgh, but he was an isolated worker and for long a prophet in the wilderness, and Scotch influence was largely wanting. After 1820, came the period of French influence when Louis and the great French clinicians drew men to Paris; and only during the last third of the century has German influence been supreme. And neither in France nor in Germany even to the present moment is systematic ward work by students who are not graduates, regarded with favour.

Now, as Timothy Holmes points out in his life of Benjamin Brodie, himself one of the great names at St. George's Hospital, during the latter half of the 18th century and the first years of the 19th, there was nothing in London which deserved the name of a hospital school, or in fact was so regarded. When Pott taught surgery at St. Bartholomews, or John Hunter at St. George's, or Abernethy anatomy at St. Bartholomew's, their lectures were attended by scholars from all parts of London and elsewhere. It is true that in 1808 Wilson and Brodie entered into that partnership in the Windmill St. School—a private venture—which in '31, or more truly '36, developed into a complete school of medicine and surgery in direct connection with St. George's Hospital. It is true that from 1808 onwards the connection of the school with St. George's was very close, but it was not absolute until the latter year. It is true that London medical students "walked the hospitals long before the beginning of the century, but I cannot learn that any regular instruction was given in the wards until about 1808. Now from the middle of the 18th century there had been a well-developed medical school in Edinburgh with university professors in different subjects.

To give you an idea of how little could be gained in London bearing upon the conduct of a medical school, I would point out that Brodie and Keate in 1808 were the first hospital surgeons to attend daily and super-tend all the cases in the wards taking notes of cases and discussing them freely with the students, and about the same date came the appointment of clinical clerks and the delivery within the hospital walls of clinical lectures. Herein, though Mr. Timothy Holmes does not mention it and speaks of Brodie as a great road-breaker in these matters, London was years behind Edinburgh, nay was copying the northern capital. In short, Edinburgh was years in advance of London in the most important matters of medical education.

I will not here enter into the development of the Edinburgh school and the Edinburgh methods, indeed I have not as yet worked this point

out to my satisfaction and have not yet determined whether the Edinburgh methods were original or whether, remembering how large a number of Scotch graduates came under the direct influence of the great Boerhaave and studied at Leyden, it was to Dutch influence that the advance was in the main due.

I did not realize how much we owe to Edinburgh in these matters until within the last few months, for it has been somewhat the custom to run down the Edinburgh teaching in medicine of the end of last century, and to regard that school as dominated by the abstract doctrines of Cullen. But a few weeks ago, looking through a collection of old manuscript notebooks we have in the library, my views about the Edinburgh teaching a century and more ago, underwent a complete change. For I happened there upon two notebooks of a certain John Rowand, the one of notes from Dr. Duncan's lectures on the practice of medicine taken down at Edinburgh in the season 1781-82, the other of cases treated in the clinical wards of the Edinburgh Hospital, 1780-2, with observations upon the cases by Dr. James Gregory and Dr. Francis Home, and it is this last which has been a revelation to me.

Clearly these are the carefully compiled notes of an Edinburgh medical student. I learn from a biography of Dr. Gregory in one of the London journals immediately after his death in 1822, that numerous notebooks of this nature were then in existence. Dr. Gregory's cases are of the period from November to March, 1780-1, Home's are of the following winter. There is a tendency to group together cases of the same nature occurring within a few weeks of each other, and preceding or more often following such groups of clinical cases there are clinical notes, and these contain references to the cases indicating that the writer had seen them in the wards. In short, the volume gives evidence that in the year 1780, there was already well developed in Edinburgh a system in clinical instruction with full instruction in note-taking (the volume in question contains the full notes of some 60 cases), and then again clinical lectures upon these cases within the infirmary. Of course you must remember that this was long before the employment of any instruments of precision, save the finger tips; there could thus in these notes be no temperature chart, no reference to percussion and auscultation; in short, they are what even the young student must regard as being lacking in many respects. But so far as they go and so far as the period will permit, they strike me as being remarkably clear and remarkably well arranged. Indeed, we have in them the foundation of our modern method, and a very good and sound foundation it is.

I don't think it will tire you if I read out to you one or two of these cases with the notes that follow them.

Richard Aldridge, æt. 22, a soldier, Nov. 30, 1780. Was attacked while in bed about 4 o'clock in the morning of the 29th with sudden violent convulsive motions of his arms and legs, grinding of his teeth and foaming at his mouth; at the same time he was frequently insensible, his eyes fixed, and his face turgid with blood. He continued in this state about 10 minutes. The fit gradually left him in a comatose condition and at this time he passed a considerable quantity of urine in bed, of which he was entirely ignorant. After three-quarters of an hour he became sensible and complained of a violent pain and confusion in his head, but could give no account at all of the coming on of the fit. He was so well after this as to do his duty on guard. In the morning he was attacked with another fit which seemed more violent than the former. He has had to-day 10 fits of the same kind, in one or two of which a quantity of bloody froth was discharged from the mouth. In other respects they were not so severe as the former. About 4 months ago he was suddenly attacked with a fit similar but neither so long nor so violent, and has not had any return since that period. Has taken no medicines. Was dismissed from the infirmary cured of swelled testicle.

(Now follow the notes of treatment in abbreviated Latin which I will expand for you).

Let there be cupping at the temples and 10 oz. of blood removed; apply emplastrum epispasticum to the dorsal spine; let him take one ounce of tinctura sacra and let an enema of tepid water be injected.

Dec. 1st, has had about 10 fits yesterday; came to himself about 4 in the morning and has had 9 fits since. Had a stool from the enema last night; no effect from the tinctura sacra which he took last night. Let him have decoction of tamarinds with senna, in doses at intervals of 2 hours; let him begin to take a drachm and a half of powder of valerian root three times a day. The cupping did not succeed well.

Dec. 2nd. 15 fits between 5 o'clock last night and 1 in the morning, constant stupor; stools and urine discharged in bed. Let blood be taken immediately up to one pound from the temporal artery unless syncope or convulsion occurs before this amount is removed. Cut off the hair and apply a blister to the head. Pulse to-day 96, full and soft.

Dec. 3rd. Was bled to about 18 oz. without any immediate effect, pulse in evening coming down to 56. Stupor then continuing, sinapisms were applied to his feet for six hours. Blister applied to his head has discharged well. No stools since yesterday morning; pulse to-day normal; skin cool; stupor much less; has had no fits since 5 o'clock yesterday morning. Repeat the sinapism at night and give of a decoction of tamarind and senna 12 oz. Take in the morning the powdered valerian root as previously prescribed.

Dec. 4th. Physic operated well, but his stools were discharged in bed.

Much high delirium last night with peculiar sparkling of the eyes. Calm at present and tolerably sensible. Gets up now to make his water. Skin very cool; pulse just 80. Continue the valerian powder. Give a bolus containing ten grains of camphor at bedtime.

Dec. 5th. Delirium continued till past midnight, but patient has been quiet since 2 in the morning; a little delirium since that time and more sleep. Pulse and appetite natural. Complained since last night and complains still of hemicranium. No sensible effect from the bolus except perhaps some sweat.

Repeat the bolus with camphor every other hour until four have been given, beginning at 2 p.m.

Dec. 6th. Pulse 66, soft and full. Took his draught at 11, fell asleep immediately afterwards, slept a good deal and has been quiet ever since. Says he has no remembrance of what has passed these three last days. No stool since the physic has done working. No appetite to-day. Let him take early in the morning every second hour cathartic sol. of crystals of tartar, $1\frac{1}{2}$ oz., Glauber's salts, $1\frac{1}{2}$ oz.

Dec. 7th. Fell asleep by times and slept till past 5 in the morning without his draught; no fits nor delirium. Suspicio quaedam fatuitatis. Physic has created great debility and vertigo on motion. Appetite poor. Let him take Peruvian bark 4 times a day.

Dec. 8th. Free from complaints of any kind. Dec. 9th. Convulsions. Dec. 10th. Dismissed cured.

I might give you notes of several other cases, but in doing this I should unduly take up your time. In all there is the same clear description of the cases and of the changes that have occurred under treatment.—in nearly all, I may add, the same heroic resort to purging, vomiting, and sweating. To produce diuresis, Dr. Gregory acted a little more gently; indeed, he strongly recommended gin-punch for this purpose; just as, I may add, he strongly recommended small beer for the thirst in low (typhoid) fever, urging that it is both agreeable and "antiseptic."

Clearly these notes have been taken down from dictation. But evidently from them and from the clinical lectures which accompany them, the students were familiar with the patients in the wards. And even if dictated we have here a most excellent exercise in the right method of terse and clear note taking.

In this case recorded, Dr. Gregory, who by the way was not the author of Gregory's powders, seemed to have been a little puzzled as to whether he was dealing with epilepsy or hysteria, and to make sure he tried both depletion of blood, and so lowering the blood pressure in the brain, and that good old remedy valerian. But these extracts will, I think, clearly show you that if Cullen, who was professor of Clinical Medicine at Edin-

burgh, was theoretical, Gregory, who was professor of theoretic medicine, was a man of an essentially practical mind.

Looking up the history of the three professors whose case reports and lectures are contained in these two columns, it is interesting from their published works, to see that these notes were taken at a time when there was very active study at Edinburgh of case reports. Thus Francis Home, whom I have not quoted, but whose cases are contained in the volume along with Gregory's, was professor of materia medica in Edinburgh and in this very year, 1780, published a volume of clinical experiments, Histories (i. e. clinical histories), and Discussions. Duncan, whose lectures are contained in the second volume, was a prolific writer; certain of his works were translated into German and other languages; among them I find a volume of medical cases selected from the records of the Public Dispensary at Edinburgh and published there in 1778. Of this a Latin translation was published at Leyden in 1783.

Dr. James Gregory was also as you see enthusiastic with regard to case reports and was further a great teacher. As one of his biographers remarks, "We can never mention his name without the warmest feelings of gratitude for those never-to-be-forgotten lessons of which we feel the value more as experience becomes more advanced. The wisdom, the manliness, the learning without pedantry, the scorn and contempt of quackery and all the other recommendations of that great and accomplished teacher contributed for a long period to keep up the dignity of an Edinburgh degree and to maintain the proper rank of the physician." He came of rather a remarkable family; his grandfather had been professor of medicine in Aberdeen, his great-uncle was the celebrated physicist, the inventor of the reflecting telescope, and his father was professor of medicine in Edinburgh, and physician to the king in Scotland. Born in 1758 in Aberdeen, Dr. Gregory after studying in Edinburgh, studied a year at St. George's Hospital in 1773, returning to Edinburgh the next year, and after a medical journey through Holland, France and Italy, he in 1775 was made professor of the Institutes of Medicine at Edinburgh. In 1790 he became Cullen's successor as professor of clinical medicine, a position which he held until his death in 1822. He was not a great writer, his main work, which was for long years the text-book of Edinburgh students, was his *Conspectus Medicinæ Theoreticæ*, published in 1780, as a text-book for his lectures. His whole energy appears to have been thrown into his hospital and medical teaching, and you would do well to take out of the library the notebook I have referred to and from which I have quoted, to read his interesting discussions of cases and treatment, which I may repeat, are anything but theoretical.

In short, Gregory, Home, Duncan, and the other Edinburgh teachers at the end of the 18th century were those who trained the original staff of the General Hospital, and of our medical school here in Montreal. They brought with them from Edinburgh the methods of ward work and from the very origin of the McGill Medical school up to the present time we have continued along the lines which they laid down.

Personally, I believe that we could go yet further than we do at present, though in saying this I speak with considerable hesitation knowing that the hospital staffs are altogether too fully occupied and that many of you cannot be regarded as ideal scribes. It seems to me, however, that we could make the study of cases in the wards count more definitely in the marks for the final years. I would be glad to see students, not merely recording the history of cases but handing in along with their case reports, short discussions upon some given topic in connection with each case—upon the diagnosis, or it might be upon certain special features in connection with the individual case, or again upon the results of treatment; and I would be prepared to see certain of the younger members of the staff appointed by the University to give special instruction at the different hospitals in note taking, as well as to read over and criticise the notes and essays handed in. This may, however, seem a counsel of perfection and impossible of realization in the immediate future. In the meantime let me urge upon you to recognize the great value of this ward work and let me once more say that it is this which has given our school its peculiar standing upon this continent and only by our keeping and developing this ward work shall we keep and develop our standing as a medical school, and will you as alumni of the school develop your individual standing in practice.

THE PATHOLOGY, DIAGNOSIS AND TREATMENT OF PERFORATED GASTRIC ULCER.

BY

GEORGE E. ARMSTRONG. M.D.,

Associate Professor of Clinical Surgery, McGill University; Surgeon to the
Montreal General Hospital, Montreal.

The last quarter of the nineteenth century has seen marvellous advances in the different departments of what may be called intraperitoneal surgery. The most obvious and frequently present lesions, naturally, were the first to be recognized, studied, and systematically dealt with. Thus, appendicitis, cholelithiasis, the pathological lesions of the uterus and its adnexa, and the surgery of the small and large intestine, have now a well determined standing, and they are recognized and treated by symptoms and rules evolved from an increased knowledge of their pathology, and a large clinical experience. Most encouraging features of this work are its gradually extending sphere of usefulness and its lessening death rate.

The surgical treatment of gastric ulcer is of comparatively recent date. Interest in this field of work has been gradually increasing until, at the present time, the various problems arising out of a consideration of the causes and such complications as hæmorrhage, perforation of the stomach wall, subphrenic abscess, pyloric stenosis and adhesions, are being more carefully studied than almost any other. This statement receives confirmation in the fact that the time of the last meeting of the American Surgical Association in Washington was devoted almost exclusively to the reading of papers on the surgery of the stomach, and their discussion. This interest in gastric ulcer is fully justified by its frequency and mortality. Between four and five per cent. of the whole population of Germany suffer at one time or another, from gastric ulcer, writes Ewald, and he estimates the mortality to be from 1.23 to 13 per cent. According to Welch, the mortality is 15 per cent. of all cases, 6.6 per cent. dying from the results of perforation (Tinker), Leube treated 1000 cases in ten years (Tinker). "In the extensive post mortem records collected by Welch, ulcer cicatrized or open, was present in about 5 per cent. of persons dying from all causes. The scars are more frequent than open ulcers" (Osler).

It is my intention in the present papers to confine my remarks strictly to perforations of the stomach wall by simple, non-malignant ulcer. We

have now the reports of a sufficient number of cases to group together and from which to draw valuable lessons.

The first operation for perforated gastric ulcer was performed in 1880. Mikulicz was the operator. The patient died. The first successful closure of a gastric ulcer was in 1892, and Kriege the operator. From 1880 to 1896, a period of sixteen years, there were reported 78 cases. These were collected together by Weir and Foote from English, German and French sources. Keen and Tucker collected 78 cases operated upon during the following two years, 1896 to 1898. An analysis of both groups may be found in the Cartwright lectures delivered by Keen in 1898. Since then Tinker has collected and published a detailed report of 57 additional cases in his dissertation "Ueber die perforierenden Magengeschwüre und ihre chirurgische Behandlung," read in Berlin on 1st July, 1900. A translation of this with the reports of yet 16 cases more may be found in the *Philadelphia Medical Journal*, February 5, 1900. I am able to add 8 more cases, so that we have now before us, for study and analysis, 240 cases. The lessening of the death rate among the later series is very great. It has been reduced from 71.51 per cent. in the first series collected by Weir and Foote, to about 40 per cent. Mikulicz reported a series of 103 cases with 33 deaths, a mortality of about 32½ per cent. This represents the total mortality. If now we go further into the details of these cases we shall find some really startling figures.

And, first, as to the results obtained in early operations, say, within twelve hours of perforation, as compared with operations performed more than twelve hours afterwards.

Weir and Foote—

	Total.	Died.	Recovered.	Percentage of Mortality.
Under 12 hours	23	9	14	39.13
12 to 24 hours	17	13	4	76.47
24 to 48 hours	18	16	2	88.88
Over 48 hours	14	12	2	85.71
Not stated	6	5	1	

Keen and Tinker—

Under 12 hours	26	5	21	19.23
12 to 24 hours	16	8	8	50.
24 to 48 hours	9	5	4	55.55
Over 48 hours	19	5	14	25.31
Not stated	8	5	3	

It is thus seen the percentage of mortality is only half as great in the second as in the first series, and that in both series it is twice as large in the second as in the first 12 hours' interval after perforation. And the results are still improving. In the last series of cases collected by Tinker, 19 cases came to operation within 12 hours of perforation, and of these 3 died, a mortality of 15.79 per cent.

The eight cases which I add to above series are as follows:—

Atherton	1	recovered.	
Kirkpatrick	1	recovered.	Personal knowledge.
Eve	1	recovered.	<i>Lancet</i> , 1900, Vol. I., p. 155.
Waitz	1	recovered.	<i>Deutsche Zeitschrift für Chirurgie</i> , Bd. LIV., 589.

and four cases which I have operated upon myself, of which one died and three recovered. These eight cases give a mortality of only 12.5 per cent., the fatal case being operated on 32 hours after perforation.

During the past five years there have been operated on in the Montreal General Hospital six cases of perforated gastric ulcer. All the cases operated on during the first 24 hours after perforation recovered. The late Dr. Kirkpatrick operated on two of these cases successfully. I operated on four, three of these successfully. The fourth case was that of a young girl who refused operation until 32 hours after perforation. The opening was found and closed, but the patient succumbed to the toxæmia of a general peritonitis. This is a very good result to have obtained, considering the nature of the cases that we had to deal with, as will appear later on. I have no doubt that other Canadian hospitals can show equally good results. Our success in the Montreal General Hospital is largely due and the credit should be largely given to the physicians who made the early diagnosis and promptly sent their people to the hospital. In no other way can one account for the lack of success in such an hospital as the Massachusetts General, where only one case has been saved out of ten. (Richardson, *Philadelphia Medical Journal*, Feb. 3, 1900.) Finney reports that they had but one case in the Johns Hopkins Hospital, and that that case died on the table (*Brit. Med. Jour. Epitome*, June 2, 1900). The mortality without operation is estimated at about 95 per cent.

Now, as to the site of perforation in operated cases; considering all the cases together, I find that the perforation has been on the

Anterior wall in	125 cases.
Posterior wall in	32 cases.
Near the lesser curvature in	61 cases
Near the cardia in	74 cases
Near the pylorus in	40 cases

These figures are in striking contrast to the figures of Welch, who found that of 793 post-mortem cases of gastric ulcer they were on the

Anterior wall in	69 cases.
Posterior wall in	235 cases.
Lesser curvature in	288 cases.
Near the pylorus in	95 cases.
Near the cardia in	50 cases.
Greater curvature in	27 cases.
At the fundus in	29 cases.

(Osler, *Practice of Medicine*, p. 479.)

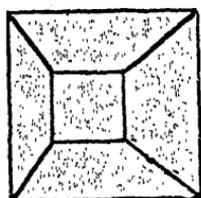
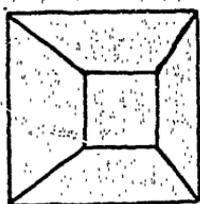
A possible explanation of the greater frequency of perforation on the anterior wall and at the cardia, may be the occurrence less frequently in these regions of protective adhesions. In fact, the adhesions between the base of the ulcer and neighbouring tissues play an important rôle in the history of peptic ulcer.

"In rare instances adhesions and a gastrocutaneous fistula form, usually in the umbilical region. Fistulous communication with the colon may also occur or a gastroduodenal fistula. The pericardium may be perforated, and even the left ventricle. Perforation into the pleura may also occur. It is to be noted that general emphysema of the cutaneous tissues occasionally follows perforation of a gastric ulcer." (Osler, p. 479.) No doubt, in many cases, adhesions result practically in a sort of cure by preventing the escape of stomach contents.

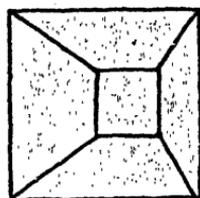
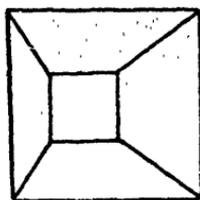
Again, several cases have been reported of more than one perforation and death has resulted after operation, from the second perforation not having been recognized, or a second ulcer, existing at the time of operation, has perforated later on during convalescence.

Tinker (*Phil. Med. Jour.*, Feb. 5, 1900, pp. 258) states, after examining 232 cases, that "more than five-sixths of the cases occur among women. About three-fifths of the cases among women occur before the twenty-fifth year, and mostly among the servant-girl class. On the other hand, only about one-twelfth of the cases among men occur at this age, while more than one-half of the patients among men were more than forty years old. The youngest patient was nine, the oldest seventy-one."

Into the subject of etiology and morbid anatomy of gastric ulcer I will not enter. The pathology of peptic ulcer is still involved in more or less obscurity. One very interesting point, however, I would like to draw attention to. I well remember the first perforated gastric ulcer I ever saw. The patient was a nurse in the Western Hospital, and had been going about performing her duties in a satisfactory manner until within forty-eight hours of her death. She had, however, complained



A



B

The above cuts illustrating Dr. Girdwood's paper on "Stereoscopic Vision" were inadvertently left out of the July number. They should be inserted to face page 506.

somewhat of dyspepsia and was anæmic. No operation was performed, but at the autopsy there was found a large round hole in the anterior wall of the stomach as large as a silver half-dollar. The edges were very little thickened, smooth and regular. The first case that I operated on presented a very large hole in the anterior stomach wall. When I opened the abdomen, there escaped a quantity of gas, serum, and stomach contents. On bringing the stomach forward, a small opening was seen, through which gas escaped. After adhesions to the left lobe of the liver had been separated, the opening appeared large enough to admit the end of the finger, and the walls of the opening were at least an inch in thickness. This thick wall was found to be made up almost altogether of lymph. It would not hold sutures, and I found it necessary to separate it from the stomach wall. When this was accomplished and the edges of the opening into the stomach were laid parallel with each other for suturing, the opening measured just three and a-half inches. The only explanation of this appears to be that adhesions had formed between the stomach wall and the left lobe of the liver before perforation became an accomplished fact, and that conservative adhesions had gone on forming at the same time that the ulcerative loss of substance had continued in the stomach wall; and the symptoms of perforation only occurred when the inflammatory process failed to effect a closure. It is in this way, I think, that the large openings sometimes reported can be accounted for.

Diagnosis.—Nearly all patients giving evidence of perforated gastric ulcer give a history of indigestion, gastric distress, or hæmatemesis, extending over a longer or shorter period. There are exceptions to this general rule, however, which one case, which I will report presently, illustrates very well; so that the absence of a history of stomach trouble should not be allowed to have too great weight.

The first symptom to indicate the occurrence of a perforation is pain. Pain may be called the danger signal, and should always receive most careful attention from the attending physician. The mere fact of there being pain in the abdomen is not diagnostic of anything. Pain in the abdomen, as elsewhere, derives its importance from its associations. Tenderness on pressure is the next symptom of importance. These two, if properly studied, will generally give a pretty good indication of the locus of the disturbing element. If the pain is found to be of maximum intensity in the gastric region, to be referred to the left along the left costal border or through to a point in the back just behind the stomach, and if associated with marked tenderness over this region, the physician's suspicions should be thoroughly aroused. If now there be found to be nausea or vomiting, and if these three symptoms, pain and tenderness

in the epigastrium and vomiting, be found associated with disturbance of temperature and pulse, the diagnosis of a perforated stomach may be made with a very considerable degree of certainty, more especially, if these symptoms occur in a patient giving a previous history of stomach derangement.

The real difficulty, however, is not so much a question of fine, exact, differential diagnosis, in which the most experienced and astute practitioner may err, but in carelessly and without much consideration assuming that the pain is due to indiscretion in diet or to colic, in the loosest sense in which that loose word may be used. A dose of opium or a hypodermic, and locally heat or cold, are quickly ordered, and soon the condition of the patient is so altered and masked that only time can make it clear.

Lastly, a few words as to treatment. As already stated, the mortality from perforated gastric ulcer, not treated surgically, is estimated at 95 per cent. Let us look for a moment at the causes of death in the reported operated cases.

The first cause of failure in saving the patient has been failure in finding the perforation. In the first series of 78 cases reported by Weir and Foote, the perforation was not found in sixteen. In the second series of 78 cases of Keen and Tinker, the perforation was not found in nine; and in Tinker's series of 76 cases, it was not found in four. This defect in the treatment thus is gradually disappearing.

Another cause of failure is the non-recognition of other perforations or ulcers likely to perforate later on.

Hæmorrhage has occasionally been the cause of death. This may perhaps be avoided by not attempting to resect the edges of the ulcer, by having due regard for neighbouring vessels, and by carefully removing the layers of lymph found around the margins of the opening, so that sound tissue may receive the sutures.

Pneumonia and pleurisy have caused death in a few cases. Peritonitis and toxæmia have been the cause of failure in many cases. This is best prevented by early operation.

As soon as the diagnosis is made with a fair degree of certainty, an incision should be made in the median line below the ensiform cartilage, the stomach brought forward, and search made for the opening. Adhesions should be freely separated. Failing to find an opening in the anterior wall, the gastrocolic omentum should be divided and the posterior wall examined.

When the opening is found, if it is sufficiently large, it is well to pack around carefully with gauze pads and wash out the stomach with steri-

lised, normal, salt solution. This washing secures to the operator a clean, dry field, and to the patient a considerable lessening, if not total relief, from the after nausea and vomiting. The hole in the stomach wall should then be closed by two or three rows of sutures. If the opening cannot be closed, a tube may be inserted and packed around with iodoform gauze. It has been recommended to stitch a layer of omentum over the suture line. I have never found this necessary.

The opening closed and the stomach replaced, the operator should most carefully cleanse, by washing with normal, saline solution, the space above the transverse colon. A small opening should then be made just above the symphysis and any fluid accumulated in the pelvis removed by washing, and by a drain inserted and retained as long as seems advisable. If general peritonitis is present at the time of operation, the general peritoneal cavity should be carefully washed out.

I have found it advantageous to give a little peptonised milk twenty-four hours after operation, if it is well retained, and to gradually increase it. At the same time I give by rectum, every six hours, a nutrient enema composed of two ounces of peptonised milk, one ounce of raw beef juice, one egg, and half an ounce of brandy. It is generally well retained, if not a few drops of laudanum are added. I try to move the bowels once each day by enema, and find none so effectual as a pint of soap and water containing twenty grains of bisulphate of quinine in solution.

The eight cases that I have collected are as follows:—

Atherton—One case; no details; recovered. This I believe was the first case in Canada.

Waitz—Female, æt. 25; operation 21 hours after perforation, which was found at the lesser curvature near the cardia. (*Deut. Zeitschr. f. Chirurgie*, Bd. LIV., p. 589.)

Eve—Female, æt. 38; recovery. Operation probably about nine hours after perforation. The opening was found on the posterior wall near the lesser curvature. (*London Lancet*, Vol. I., 1900, p. 155.)

Kirkpatrick's second case (one already reported)—Female, æt. 20; recovery; ulcer about middle of anterior wall.

Armstrong—Female, æt. 20; operation 22 hours after perforation; large opening in anterior wall of stomach; recovery.

F. D., female, aged 27. This patient was admitted to the Montreal General Hospital six hours after perforation. A diagnosis of perforated gastric ulcer was made, but she positively refused operation until 32 hours after perforation. This is the only fatal case out of the six that we have had in the Montreal General Hospital. She died of peritonitis. The opening was on the anterior wall, two inches from the pylorus.

My third case, J. B., male, aged 40, has a rather interesting clinical history. I saw him with his family physician, Dr. LeBlanc, on the morning of Oct. 28, 1899. He was then suffering severely from abdominal pain. I was told that in November, 1898, he had suffered from a similar attack, accompanied by yellow discolouration of the skin. His family physician had seen him during the night before my arrival and had given him hypodermically one-half grain of morphia, and applied hot fomentations over the abdomen. He had not vomited. His family history was negative.

At the time of my visit he was still suffering a good deal, notwithstanding his morphia injection, $\frac{1}{2}$ grain in 5 hours. There was general abdominal tenderness of an extreme degree. I could not quite decide that the tenderness was greater in one part than in another, but thought that he was most sensitive over the region of the appendix vermiformis. He complained of the weight of the bedclothes. Muscular rigidity was most marked; nay, I may almost say that the abdomen was as hard as a board. Respiratory movements were entirely absent over the whole of the abdomen. Liver dulness was present and normal. No tumour mass could be made out. I had considerable difficulty in persuading him to come into the hospital for operation, but being ably seconded by Dr. LeBlanc, finally succeeded.

On his admission to the hospital his temperature was $96\frac{4}{5}^{\circ}$ F., pulse 104, respiration 26. I operated $11\frac{1}{2}$ hours after perforation. Thinking that the chances were that I had to deal with an appendicitis, I first opened the abdomen on the right side. Foul-smelling pus escaped. The border of the great omentum was covered here and there by loose layers of lymph. The appendix was found to be normal and removed. I then made an incision in the right semilunaris and exposed the gall-bladder, which was normal. No gall-stones could be felt. On examining the anterior wall of the stomach, I came upon a hole near the lesser curvature and about three inches from the pylorus. The edges of the opening were sharply defined. Closure was effected by three rows of sutures and the whole abdomen thoroughly washed out with sterilised, normal, saline solution. Drainage tubes were inserted above and below into the pelvis. Cultures made from the pus showed the presence of staphylococci. This man made a slow but perfect recovery and is now in good health.

My fourth and last case was a male aged 25. He was admitted to the Montreal General Hospital at 11 a.m., on the 30th December, 1899, complaining of severe abdominal pain. He stated that on the 25th of December he felt sick and went home from work early in the afternoon. He was at work again on the 26th, 27th, 28th and 29th, not feeling well

and suffering more or less from nausea. At 4 p.m. on the 29th, he was seized with severe pain in the epigastrium, accompanied by vomiting. He vomited three or four times, but no blood. He entered the hospital the following morning. Family history negative.

On admission his temperature was 98° F., pulse 95. He was anæmic. There was present a board-like rigidity over the whole abdomen, which was motionless, the breathing being entirely thoracic. There had been no movement of the bowels for four days; the bladder was empty. Tenderness was acute and general; his expression haggard and anxious. An hour after admission his temperature had risen to 101 $\frac{1}{2}$ ° F., and his pulse to 104.

He states positively that he never suffered from any stomach trouble before the onset of the present attack except that fifteen years ago he suffered similarly for two days.

An examination of the chest discovered dulness and faint blowing breathing over back of the right lung from the spine to angle of the scapula. Sputum mucopurulent, green, thick, scanty, and tenacious.

Operation, 22 hours after perforation. In this, as in the former case, I could not decide where the lesion was most likely to be found. An exploratory incision was made, first in the median line below the umbilicus. The extraperitoneal fat was of a peculiar, jelly-like consistence and the peritoneum greatly thickened. When the abdomen was opened a greenish-yellow fluid poured out carrying with it masses of a cream-coloured lymph, and large masses of this greenish, jelly-like material. Over a great part of the coils of intestine the same jelly-like substance was found, and it appeared to be covered by a layer of epithelium. Fine blood vessels entered these masses from the intestinal wall.

After the abdomen had been thoroughly cleansed with sterilised, normal, salt solution at a temperature of 110° F., an intussusception was found a short distance above the ileocæcal valve. It was easily undone. The bowel above and below was normal. A second incision below the ensiform cartilage gave access to the anterior wall of the stomach, which was found perforated near to the lesser curvature and about 1 $\frac{1}{2}$ inches from the pylorus. This was closed in the usual way, and drainage provided for the upper and lower spaces.

This man made a good recovery but it was tedious. The pneumonia increased, and resolved very slowly. He left the hospital in good condition.

These last two cases afford a very good demonstration of the marked contrast in degree of virulence of infection from the stomach as compared with that from the small intestine or appendix vermiformis.

PREVENTIVE MEDICINE.*

BY

WM. BAYARD, M.D., St. John, N.B.

It has been deemed expedient to amalgamate the New Brunswick and the Maritime Associations for the present session, meeting—as they do—on the same day, and to require an address from one chairman, instead of one from each.

My friend, Dr. Christie—with his usual liberality—has conceded that privilege to me, for which, let me thank him, and you all for accepting me. Doubtless my age has exercised an influence in the selection, if so, it justifies me in the belief that you do not look upon me as a fossil to be placed on the shelf as an antediluvian relic. For this I also thank you.

Dr. Daniel—our Mayor—has already given you some words of welcome to our city. Let me echo all that he has said, and add that it is my belief that medical association produces an intellectual contagion, and creates in the mind of each member a certain degree of emulation, when he listens to the reading and discussion of a good paper. Indeed, I will go further, and say that without association and discussion few can, or will, keep pace with the immense progress in medicine of the present day.

Our social gatherings have created a brotherly love among us, which compares very favourably with that which existed in my early day, when special medical associations did not exist. I was at that time (1837) one of eight, while I am now one of nearly seven times that number. Competition has vastly increased, yet, I am proud to say, the noble precept, live and let live, has been obeyed. Nevertheless, if competition continues to increase in the same ratio without a corresponding increase of population, we will in the end be driven to embrace some other calling.

Before proceeding with my subject, let me perform a melancholy duty in paying a passing tribute to the memory of three of our members, Dr. Bruce, Dr. McFarlane, and Dr. Coulthard, taken from us in the prime of life to that bourne from whence none return. All men of standing in our profession, it was my privilege to be associated for many years with one, Dr. Coulthard, as a member of the Provincial Board of Health, and I can say in all sincerity, that the urbanity, the ability, and the integrity with which he conducted his work, commanded the respect and the esteem of his *confrères*.

* Delivered before the Maritime Medical Association, St. John, N.B., July 18th 1900.

It has been my privilege to address you so often that I find it difficult to select a subject that will command your interest. Revolving the matter in my mind, my experience tells me that, while the members of our profession live by ministering to the sick, to their credit be it said, they are ever found initiating, urging, and enforcing the recognized measures for the prevention of the calamities, sickness and death.

With this belief in my mind, I propose offering you a few remarks upon "Preventive Medicine," particularly including that dreadful white plague of the civilized human race, tuberculosis.

The conception that disease can be prevented is of modern times, say the last 60 years. An increased knowledge of the causes of disease has largely aided the power of prevention. While it is true that the Mosaic laws enjoined cleanliness, isolation of the sick, and wholesome food and drink, England may be classed as the mother of hygiene, and her precepts and example have been largely followed by all civilized nations.

Microscopy, bacteriology and close observation, have established a new era in preventive medicine, revealing to us the causes of disease, and thereby immensely aiding our diagnosis. Medical evolution has kept pace with intellectual development, and it would require the pen of a medical genius to portray the good that has been accomplished by preventive medicine during my time. And those who follow me may live to see verified Pasteur's prediction, "That by a process of vaccination or immunization it may soon be possible for man to eradicate every contagious disease from off the face of the earth."

To prevent disease, its cause should be known; I need not tell you that disease is a departure from a certain assumed standard of health, affecting a part or the whole of the body. A committee of the Royal College of Physicians, has divided all diseases into general and local:—General diseases, such as affect the whole frame; local diseases, such as occupy various parts of the body. There are 58 forms under the head of general diseases, and 843 varieties under that of local diseases. To these it adds 91 of other conditions of disease, and 155 forms of injuries. Of the whole, 33 are classed as infectious or contagious diseases. The result gives 1147 variations from health, to which the human family may be subjected.

So we may start with the great fact in our minds, that there are in detail before the scholar of the healing art, 1147 diseases and conditions of mankind, with the nature, the causes, and the prevention of which he must make himself more or less familiar. To accomplish this, he should have access to a correct registration of births, deaths and marriages, and I may add, of diseases and their symptoms, without which he can not arrive at sound conclusions.

Disease is costly to the individual and to the State, hence its prevention must be proportionately remunerative to both. This prevention is one of the absorbing problems of the day, appealing as it does to the philanthropist and the statesman; but both too often leave it to the physician to solve. It cannot be enforced without money. Yet, when the holders of the public purse are approached for means to prevent sickness and save life, they plead poverty and dole out grudgingly the minutest pittance, often accompanied by humiliating restrictions, to men who are gratuitously performing a public charity. This could not exist without the approval of the people, and it will continue to exist, until they are educated as to the value of preventive measures. Then, it is hoped, a wave of popular protest will be set in motion, proclaiming in unmistakable terms the maxim, *salus populi suprema lex*.

It has been estimated that sanitary measures save the lives of nearly 71,000 yearly in England. But much remains to be done, for Sir Joseph Fayrer informs us that about 125,000 persons die every year in England from preventable diseases, and we may assume a like proportion for this country. The consequent sickness causing that number of deaths would mean 78,250,000 days' work lost, with a money value of 7,750,000 pounds sterling.

Disease appearing in an epidemic form in a community is the best educator, inasmuch as it impresses upon the mind of all the fact that those living in filthy and impure districts suffer most severely. I can call to mind that when Asiatic cholera appeared in this city in 1854, this was exemplified in Sheriff street, Patrick street, and what was then called York Point, and in the environment of the Mill Pond, places too filthy for description. As an illustration of their state, I may mention to you that the next year, when a Board of Health was established, 554 tenements were found without privy accommodation of any kind. Almost every other house in those districts had a pig in its attic; I recollect one that had out-grown his surroundings to such an extent that he could not be removed alive. Very many cows supplying milk to the inhabitants were found in dark and filthy sheds, with less than 200 cubic feet of air-space to each animal, instead of 2000.

At that time we had no means of forming an opinion of the mortality of a district, but in the districts named it was frightful; while in other parts of the town there were very few cases. Happily the sanitarian has banished that state of things.

The results of general application of sanitary measures are that the general mortality has, during the last 50 years, been reduced one-half. The individual longevity of man has increased more than 3 years, that of women 3½ years. The mortality of the British troops is only two-

fifths of what it was at the time of the Crimean War, among those in the East Indies one-third, and among those in the West Indies one-tenth. Dr. Parker, of London, has estimated that smallpox has diminished 95 per cent.; deaths from fevers generally have declined 82 per cent., deaths from typhus fever 95 per cent., deaths from enteric fever 60 per cent., deaths from scarlet fever 81 per cent., deaths from diphtheria 59 per cent., and deaths from phthisis 46 per cent. The mortality from surgical operations, has, through the teaching of Lord Lister, been reduced 20 per cent., the surgeon no longer dreading septicæmia, gangrene, etc., when in former times almost every other amputation resulted in death. It is estimated that the operation for ovariectomy has added 40,000 years of useful life to women in Great Britain, with a like proportion for other countries.

But there is another side to this picture. The mortality from cancer is double as large as it was 40 years ago, and it is progressing steadily. At first the increase was greater in females, now it is greater in males. Better diagnosis and more careful observation may account for a proportion of the increase, but not for the whole of it. Various theories have been offered for the increase, such as heredity, decline of zymotic disease, increased longevity, the decline of tuberculosis, increased prosperity, increased use of meat, alcoholism, and others I shall not stop to discuss, as none are by any means satisfactory.

Bacteriology has taught us that many contagious diseases are due to micro-organisms. Some at first believed that the organisms were the result rather than the cause of disease, until Koch in 1881, and subsequently, studied their history, and isolated and cultivated them. The 'cell theory' of the present day, was formulated by Virchow in 1858. He showed that every organism was composed of cells, and that every cell has an individual existence, a unity, and purpose of its own. He contends that life is in a cell, and that life has no other origin than life.

When Jenner discovered the principles of vaccination, little did he think that his virus would become the forerunner of the antitoxins, and be suggestive of serumtherapy, immunity, and preventive medicine, and lead to organotherapy, and antiseptics.

Serumtherapy promises brilliant results, Michet claims that in 1889 he gave the first serotherapeutic injection. Behring in 1890 showed the effects of antitoxic serum on the fixed tissue-cells, and in 1892 he showed the results of serumtherapy in diphtheria, proving that its antitoxin has not only immunizing qualities, but is also a veritable remedy, in reducing the mortality from 47 to 8 per cent. Serum treatment has been adopted in many diseases with various results. The nature of immunity is an unsolved riddle, no satisfactory law has yet been formulated

for it. Why is natural immunity peculiar to some species, races, or individuals? We know that artificial immunity is secured by attacks of disease, by vaccination, by treatment with sterilized cultures and by treating susceptible animals with the blood-serum of immune animals, but we do not know how the immunizing effect is produced.

Heredity is a prolific cause of disease and degeneracy, hence the Sanitarian should give a warning note against injudicious marriage. It is true that marriage is often based on sentiment rather than upon reason. If intermarriage with those labouring under hereditary taint were restricted, we would not hear of the degeneracy portrayed by Billings, who informs us that in 1892 there were 7000 murders in the United States, 100,000 orphans, 106,252 insane, 95,571 imbeciles and idiots, 50,411 blind, 41,283 deaf mutes, and 86,000 prisoners. It has been claimed that from 65 to 75 per cent. of crime, imbecility, and insanity is due to heredity.

Now, I must claim the privilege of bringing under your notice that wide-spread disease tuberculosis, with the history, the symptoms, and the treatment of which, I well know you are perfectly familiar. My object in doing so is to enlist your aid in educating the 'masses' as to the best mode of preventing its ravages. To do this we must obtain the confidence and the co-operation of the victim; disabuse his mind of the too prevalent belief that his disease is incurable; impress upon him that it is contagious, and that by the non-observance of certain rules, he may not only increase his own disease but transmit it to his family or his neighbour.

The disease is always with us, stealing upon its victim like a thief in the night, leaving death and desolation in its path, and causing more deaths than any three diseases combined. It has occupied the master minds of the medical profession from the time of Hippocrates to the present century, yielding various views and theories, some supporting its contagious character, others that it is transmitted from parent to child; all admitting its deadly character, but none arriving at any positive conclusion as to its cause. This knowledge was reserved for Robert Koch, a German bacteriologist, who in March, 1882, announced to the world his discovery of the bacillus tuberculosis, a rod-like germ, as the cause, and declared the disease to be contagious. Other investigators have established the correctness of his statements. Armed with this information, it is now the universal belief that the disease is transmitted from man to man by the germs contained in the expectoration of a consumptive, by drinking the milk from a tuberculous cow, by eating the meat of a diseased animal when not properly cooked, and possibly by several other modes of conveyance.

There are many problems in this disease. It may be asked, why are the Jews far less susceptible to it than any other race? Why is the death rate of the negro and the Indian double that of his white brother? Why do goats, rats, and white mice, possess immunity, while cats, rabbits, field mice, pigs, and fowls, are susceptible? Why is the disease common in cattle, and rare in sheep and horses? Why do apes and monkeys contract tuberculosis so readily in confinement and never in their native wilds? Why do measles, whooping-cough and diabetes predispose to the disease? These are questions we are unable to answer.

It is needless for me to say to you that the bacillus tuberculosis is one of the smallest living organisms known to science, made up of a single cell, each growing and multiplying entirely by itself; each cell multiplies by its division into two, reaching its adult age in less than half an hour. This subdivision continuing, it is a simple arithmetical calculation to show that, starting with a single cell, there will be in 24 hours, no less than 17 million descendants of that original cell, and so light and small are they, that it would take 500 millions of them to weigh one grain, and it has been estimated that the expectoration from a consumptive, would yield in 24 hours 7 billion. These bacilli are possessed of great vitality, light and air have not the same effect upon them that they have upon other bacilli.

The germs are not transmitted by the breath, the expectoration must become dry and pulverized when it is disseminated through the atmosphere and inhaled. Having obtained access to the lungs, if the soil is suitable and if they are not destroyed by existing organisms, ultimately consumption is established.

Infection may be established by ingestion, as by the use of tuberculous milk and meat; by the saliva of a consumptive, as by kissing, the common use of the communion cup, by caressing domestic, pet animals having the disease, as dogs, cats, birds, etc. It may also be conveyed by inoculation, as by inserting the hand with an abrasion on it into water poisoned with tuberculous expectoration, by ritual circumcision, tattooing, etc.

As early as 1838, Carswell wrote, "Pathological anatomy has perhaps never given more decisive proofs of the curability of a disease, than it has given for pulmonary consumption." Goodhart, Charcot, Broudel, and very many others corroborate this statement. The post mortem table has afforded ample proof of spontaneous recovery, by the existence of cicatrized lung lesions in persons killed by accident, and in whom tuberculosis was not suspected.

From what has already been said regarding the inhalation of the

germs, it is quite evident that the destruction of the sputa before it becomes dry, is the best preventive against the spread of consumption. The victim should be made to understand that he is a standing menace to his family, to his friends, and to the public generally, unless he follows strictly the precautions advised. What are they? While in his house he should always expectorate into a vessel containing some disinfecting fluid. When out, he should carry and *invariably* use a receptacle for the sputum; this will prevent the filthy habit of expectorating on the sidewalks, floors of rooms, railway cars, etc. The contents of the vessels should be burned daily or oftener, never thrown on the ash-heap, street, garden, or field. After which the vessel should be put in boiling water for 20 minutes. The expectoration may become dry on his beard, clothes, and hands; hence he should be clean shaven, and keep himself scrupulously clean. If he allows the sputa in his room to become dry and pulverized, he is keeping up his disease by re-inhaling them.

Those who are compelled to live in the company of consumptives, should live in the open air as much as circumstances will permit. The atmosphere of their bedrooms cannot be too fresh and pure, they need not fear loose windows, summer or winter. In mild weather, the window in the room should be lowered a few inches from the top, day and night. When there is no fire in the room, a lighted lamp in the fireplace will create an upward draught.

All the good advice that can be given will not eradicate the almost universal habit of spitting on the sidewalks. Therefore Dame Fashion makes a grave mistake when she decrees that they shall be swept by the skirts of our ladies, regardless of the germs they carry into the household.

The room in which a consumptive patient has lived or died should on no account be occupied by another without being thoroughly disinfected. To do this the ceiling should be lime washed, the wallpaper removed, or in default of that, well rubbed with fresh bread and the debris burned. The floors and woodwork should be washed with a solution of corrosive sublimate and permanganate of potash. All clothes worn by the patient should be disinfected by steam or fumigation.

Hippocrates wrote that the greatest and most dangerous disease, and the one that proved the most fatal to the greatest number, was consumption. And to-day it is generally conceded that one-seventh of all deaths are due to consumption, and that one-sixth of all mankind is tuberculous. In 1894 the general mortality ranged from 13.4 to 50.3 for each 1000 living. In England and Wales, it has decreased from 2410 per million in 1870, to 1307 in 1896. Since the introduction of sanatoria, it has been reduced 7 per cent. And it is claimed that 70 per cent. re-

cover in some institutions when the patients are treated during the first stage of the disease.

Tuberculosis has been properly called the "scourge of man and beast." It is estimated that 5 per cent. of all milch cows are tuberculous, and among high-bred cattle it often ranges at 50 per cent. Dr. Martin of the Royal Commission of England, says: "The milk from cows with tuberculous udders possesses a virulence which can only be described as extraordinary." Hence as milk is used by man from his cradle to his grave, the first step towards prophylaxis in man is to stamp out the disease in cattle. How is this to be accomplished? By a universal inspection, and the application of the tuberculin test to all milch cows, by a veterinary surgeon, not by the owner, and by the destruction of all tuberculous meat, and the isolation or death of diseased cattle.

To have wholesome milk, the animal yielding it must be in perfect health. To secure this, she should be carefully fed, groomed, and kept in a stable which is clean, light and affords not less than 1000 cubic feet of air space. Milk taken from the udder of a healthy animal contains no germs, and if hermetically sealed will keep indefinitely. But its power of absorption is such that in the process of milking—when in an impure atmosphere—it will absorb thousands.

General sanitary improvements have reduced the mortality from consumption nearly two-thirds since 1838. England was the first country to establish special hospitals for the treatment of the disease, but the percentage of improvement in them, being only 20 to 30, as compared with 50 to 90 in sanatoria where the aërotherapeutic treatment is pursued. Hence, sanatoria are being established in all civilized countries. It is hard to arrive at correct conclusions regarding the mortality in them, so much depends upon the stage of the disease existing in the patient at the time he enters the institution.

Dr. Walters asserts that, "generally speaking, one may say that from one-fourth to one-third of the patients treated in sanatoria, are practically cured, or a still greater proportion if they are treated in the early stage." Probably systematic and prolonged treatment from an early stage, would restore to health from one-half to two-thirds of our consumptive patients. The sick, as a rule, will not submit to more than a few months treatment in a sanatorium, so that we must trust to the educational influence of the sanatorium to complete the recovery of those treated in it. One argument in favour of sanatoria is that they are the best educators regarding prevention and treatment. General hospitals necessarily claim few recoveries from consumption. Patients seldom seek admission to them during the early stage of the disease, their sojourn averages about 15 months and costs the state about one-

dollar per day ; while the sojourn in a sanatorium rarely exceeds six months, and oftener much less, costs very little more per day, with the probable restoration to health of from one-half to two-thirds. Again, it is cruel to place consumptives among those labouring under various other diseases, the *ærotherapeutic* treatment and surroundings cannot suit both.

A sanatorium should be located within easy reach of the centre of population, say not more than 4 or 5 hours by rail, in a region free from malarial influences, fog, smoke, dust, and cold winds ; on elevated porous ground, with a southern exposure, and having a good water supply, with acreage sufficient to afford ample walks, shade trees, etc., not less than 10 acres.

Sanatoria cost money for their construction and support. Who should furnish the money ? All are to reap benefit, therefore, all should contribute. The state represents all, and has a money interest in the life of every individual in it. It does not hesitate to spend money for the introduction of immigrants, surely it should do the same to save life.

The Registrar-General of England values the life of every individual, old and young, of both sexes, at 149 pounds sterling. A death from consumption represents 630 days of sickness. Now, 77 died in this city from that disease during the last 8 months. Out of the 77 let us suppose 30 to have been saved. Placing their value at much less than the English value—say \$500 each,—here we have a money value of \$15,000. Apply this calculation to the province, and the members of our Government will have a goodly sum to spare for this noble work. That they will spare it I have no doubt. Our province must not be behind its neighbours in this great necessity. Nova Scotia has shown us a good example by an appropriation of \$15,000.

My idea is that Fredericton would be a good location for a sanatorium, provided good water can be found, not from the river. Built in cottage form, the Government should furnish the land and the cottage for the poor and support it, while philanthropy should supply those intended to receive the paying patients. I am informed that this has been done in England and other countries, the stock paying from 2 to 5 per cent. I throw this out as a suggestion. If a better one is offered, I will gladly receive it.

In conclusion, gentlemen, let me say that one of the problems agitating the public mind at the present day, is the possibility of combating that great scourge of humanity, consumption. The laity look to the medical world for aid in the matter, and it is our duty to afford it. I well know that when I appeal to my confreres, I am appealing to a body

of gentlemen who are ever foremost in philanthropic work, and who perform more charitable labour than all other professions combined. We all know that the disease is largely preventable, and largely curable, let us impress this fact upon the minds of all. Man is prone to neglect health, until he begins to lose it. Let us teach him the nature, the cause, and the prevention of the disease, in fact teach him all we know about it, when he will realize the advantage of applying for aid in the early stage of the disease. Let us seek the co-operation of the statesman, philanthropist, and the sanitarian, when, I have no doubt, we will succeed in curing the curable, and in making harmless the incurable.

A CASE OF TYPHOID FEVER TREATED BY THE SO-CALLED "WOODBRIDGE TREATMENT."

BY

A. SCHMIDT, M.D.

Having read the claims of Dr. John Elliot Woodbridge of Youngstown, Ohio, for his treatment of typhoid fever, that if begun early enough no one should die of that disease and that also the case should be convalescent about a week after beginning treatment, and having, moreover, at one of the meetings of the Montreal Medico-Chirurgical Society, heard the President, Dr. Adami, remark that, theoretically, aperients ought to be beneficial in treatment, I consequently decided to adopt this treatment in the case which I now report.

On the 20th of May last I was called to see a man who had been ill in bed for six days suffering from symptoms pointing to typhoid fever. I proved the case to be one of typhoid fever by getting a positive reaction from the Johnston-Widal test, and on the following day commenced the Woodbridge treatment.

This treatment consists of antiseptics and aperients administered in small doses every fifteen minutes during waking hours. The diet is not supposed to be of very great importance and in this case, milk, eggs, and rice were allowed, with a moderate amount of stimulants.

The case was a rather severe one when treatment was begun. There were very pronounced nervous symptoms, including severe headache; and my reason for reporting it is that I was surprised by the rapid improvement obtained under the method adopted, and would like to induce others to give it a trial in order to prove conclusively its efficacy. This could be best carried out in a hospital where comparisons can be made so much more effectively. This, certainly, is the only case of typhoid fever I have ever seen, in which treatment seemed to effect the cure; for thirteen days after beginning the treatment, the patient was convalescent. On the fourth day the temperature had fallen to 98° F. and had it not been advisable to discontinue the administration of the tablets containing calomel, on account of a slight tenderness of the gums, I feel sure the patient would have got well still sooner.

Dr. Woodbridge makes use of three different kinds of tablets of the following composition.

No. 1 contains podophyllin resin, $\frac{1}{1000}$ grain; mercurous chloride mild, $\frac{1}{16}$ grain; guaiacol carbonate, $\frac{1}{16}$ grain; menthol, $\frac{1}{16}$ grain; and eucalyptol, *q.s.* No. 2 is the same as No. 1, except that the quan-

tity of guaiacol is increased to $\frac{1}{4}$ grain, and thymol, $\frac{1}{16}$ grain is added. No. 3 contains guaiacol carbonate, 3 grains; thymol, 1 grain; menthol, $\frac{1}{2}$ grain; and eucalyptol, 5 minims.

The rules for administration as set forth by Dr. Woodbridge are:—

At any stage of an attack of typhoid fever (the earlier the better), or in any pathological condition in which a general or intestinal antiseptic or eliminant is indicated, begin with tablets numbered 1, giving one every fifteen minutes during all the wakeful portion of the first forty-eight hours, unless too frequent evacuations of the bowels demand their temporary discontinuance. At the end of twenty-four hours begin with formula No. 2. Give one every fifteen minutes. This formula, as well as formula No. 1, should be administered as freely as possible until not less than five or six free evacuations of the bowels have been secured during the second twenty-four hours of treatment, or as soon as practicable thereafter, even though three or four or more of tablets Nos. 1 and 2 have to be given every fifteen minutes. As soon as these free evacuations of the bowels have been secured the tablets of formula No. 1 should be discontinued, and the intervals between the doses of formula No. 2 so lengthened as to allow the movements of the bowels to become less and less frequent, until reduced to one or two each day, by the time the temperature has touched normal. On the morning of the third or fourth day the capsules of formula No. 3 should be commenced, one being given every three or four hours, alternating with the tablets. On the fourth or fifth day the tablets should be discontinued for a day or two, and teaspoonful doses of a saturated solution of chlorate of potash should be administered every three hours during this period, after which tablet No. 2 should again be exhibited as freely as possible without causing too frequent evacuations of the bowels. The patient should be carefully watched and should the slightest symptom of ptyalism supervene the tablets should again be discontinued and the chlorate of potash again freely exhibited.

In the treatment of typhoid fever in young children tablets of formula No. 4 may be substituted for tablets of formula No. 1, each of the former containing podophyllin $\frac{1}{900}$ grain; mercurous chloride mild, $\frac{1}{16}$ grain; guaiacol carbonate, $\frac{1}{8}$ grain; menthol, $\frac{1}{96}$ grain; eucalyptol, *q.s.* One of these tablets should be given every hour or oftener to infants or young children *pro re nata*, the object being to produce the same general effect as advised in the treatment of the disease in adults. After which, capsules of formula No. 5 should be administered, each of which contains:—Guaiacol carbonate, $\frac{1}{2}$ grain; thymol, $\frac{1}{8}$ grain; menthol, $\frac{1}{16}$ grain; eucalyptol, one minim; olive oil, *q.s.* Give one capsule three times a day or oftener according to the age of the child. During all the

course of the treatment in both children and adults the patient must wash down each and every dose of medicine with a large draught of distilled water or, if indicated, some good laxative or mineral water.

As is well known, we have no cure for this dreaded disease, so that any treatment seeming to have any effect in shortening its duration and perhaps in saving life, should be given a trial. Dr. Woodbridge's paper entitled "Further Reports on the Abortion of Typhoid Fever," appeared in the *Journal of the American Medical Association* for January 5, 1895. A second paper entitled "Reports on Typhoid Fever," was read before the Section of Medicine, at the 46th Annual Meeting of the American Medical Association in Baltimore, May 7-10, 1895, and appeared in the August 10th and 25th, 1895, issues of the same journal.

CENTENARY OF THE ROYAL COLLEGE OF SURGEONS OF
ENGLAND.*

THE HONORARY FELLOWS.

The Fellowship of the Royal College of Surgeons of England was on July 26th conferred on thirty-four eminent surgeons representing Scotland, Ireland, Canada, the United States, Austria, Belgium, Denmark, France, Germany, Italy, Norway, Russia, Spain, Sweden, Switzerland, and the Naval and Military Medical Services in the theatre of London University. The following is a list of the Honorary Fellows.

H.R.H. THE PRINCE OF WALES, K.G.

Elected 14th June, 1900.

Admitted 24th July, 1900.

THE MOST HON. THE MARQUESS OF SALISBURY, K.G.

THE RIGHT HON. THE EARL OF ROSEBERRY, K.G., K.T.

Elected 12th July, 1900.

Admitted 26th July, 1900.

Elected 25th July, 1900.

Admitted 26th July, 1900.

ALBERT, EDUARD, M.D.; Professor of Clinical Surgery, University of Vienna; Member of the Austrian House of Lords and of the Supreme Sanitary Council; Royal Imperial Councillor of State.

BALL, CHARLES BENT, M.D., M.Ch.; Regius Professor of Surgery, University of Dublin; Surgeon Sir Patrick Dun's Hospital; Consulting Surgeon Steevens' Hospital, Dublin.

BASSINI, EDOARDO, M.D.; Professor of Clinical Surgery, Royal University of Padua; Commander of the Order of the Corona d'Italia.

BENNETT, EDWARD HALLARAN, M.D., M.Ch.; Professor of Surgery, Trinity College, Dublin; President of the Royal Academy of Medicine in Ireland.

BERG, JOHN WILHELM, M.D.; Professor of Surgery, Royal Caroline Institute of Medicine and Surgery, Stockholm; Surgeon to the Royal Seraphim Hospital; Member of the Direction of the

* Selected from the *British Medical Journal* report.

"Sophiahouse"; Member and Ex-President of the Swedish Medical Society and of the Scandinavian Surgical Association.

VON BERGMANN, S. EXC. Professor Dr. ERNST, Geh. Med. Rath; Royal Prussian Medical Privy Councillor, Imperial Russian Actual Councillor of State, Knight of the Prussian Order of Hohenzollern, the Prussian Kron and Red Eagle Orders; Knight Grand Cross (with Diamonds) Imperial Russian Orders of the Holy Anne, of the Holy Stanislas and the Holy Vladimir. General-Arzt of the Prussian Army with the rank of Major-General. Served in the Franco-German and Russo-Turkish Wars.

BLOCH, OSCAR THORVALD, M.D.; Professor of Clinical Surgery, University of Copenhagen; Physician in Ordinary to His Royal Highness the Crown Prince of Denmark; Surgeon to the Royal Frederiks Hospital; Member of the Royal Board of Health of Denmark.

CAMERON, IRVING HEWARD, M.B.; Professor of Surgery and Clinical Surgery, University of Toronto; Surgeon, Toronto General Hospital.

CARDENAL FERNANDEZ, SALVADOR, M.D.; Vice-President of the Royal Academy of Medicine and Surgery of Barcelona; Director of the "Hospital del Sagrado Corazon" of Barcelona; Commander of the Royal Order of Isabella the Catholic.

D'ANTONA, ANTONINO, M.D.; Professor of Surgery, Royal University of Naples; Professor of the Propedeutica Chirurgicale, and of the Institute of Surgical Pathology, of Naples.

DURANTE, FRANCESCO, M.D., Senator; Professor of Clinical Surgery, Royal University of Rome; President of the Royal Medical Academy of Rome; President of the Italian Surgical Society; Knight of the Most Distinguished Order of the "Merito Civile di Savoia"; Knight Grand Cross of the "Corona d'Italia."

HALSTED, WILLIAM STEWART, M.D.; Professor of Surgery, Johns Hopkins University, and Surgeon to the Johns Hopkins Hospital, Baltimore.

HINGSTON, HON. SIR WILLIAM HALES, M.D., LL.D., D.C.L.; Professor of Clinical Surgery, Laval University; Surgeon-in-Chief Hotel Dieu Hospital, Montreal. Senator of the Dominion of Canada.

JAMESON, Surgeon-General JAMES, C.B., M.D., LL.D., Director-General, Army Medical Service; Knight of Grace of the Order of St. John of Jerusalem in England. Served in Canada, West Indies, and Egypt, and in the Franco-German War.

- KEEN, WILLIAM WILLIAMS, M.D., LL.D.; Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; President, American Medical Association; President, College of Physicians of Philadelphia.
- KOCHER, THEODOR, M.D.; Professor of Clinical Surgery, University of Bern; Colonel, Medical Department of the Swiss Federal Army; President of the Swiss Medical Association.
- KÖNIG, FRANZ, M.D., Geh. Med. Rath; Professor of Surgery; Director of Clinical Surgery at the Charité Hospital, Berlin; General-Arzt à la suite of the Army Medical Corps. Served in the Franco-German War as Consulting Surgeon to the Prussian Army.
- KUSTER, ERNST GEORG FERDINAND, M.D., Geh. Med. Rath; Professor of Surgery and Director of Clinical Surgery, Marburg; General-Arzt of I. Class à la suite of the Medical Service of the German Army.
- LANBOTTE, ELIE D. H., M.D.; Surgeon of the Hospital "Bon Pasteur," Bruxelles; Professor at the "Institute des Hautes Etudes."
- LANNELONGUE, ODILON MARC, M.D.; Professor of Surgical Pathology, Faculty of Medicine of Paris; Member of the Academy of Medicine; Member of the Academy of Sciences; Surgeon, "Hôpital des Enfants malades."
- LENNANDER, KARL GUSTAF, M.D.; Professor of Surgery and Obstetrics, University of Upsala.
- MACEWEN, WILLIAM, M.D., LL.D., F.R.S.; Regius Professor of Surgery, University of Glasgow.
- MACLEOD, Colonel KENNETH, M.D., LL.D.; Indian Medical Service; Professor of Clinical and Military Medicine, Army Medical School, Netley; late Professor of Anatomy and Clinical Surgery, and of Systematic Surgery, Calcutta Medical College.
- NICOLAYSEN, JULIUS, M.D.; Professor of Surgery, Royal University of Christiania.
- NORBURY, SIR HENRY FREDERICK, K.C.B., Director-General, Medical Department of the Royal Navy. Served in the Kaffir and Zulu Wars, 1878 and 1879.
- OLLIER, LEOPOLD, M.D.; Professor of Clinical Surgery, University of Lyons.
- PACHOUTINE, VICTOR, M.D., Privy Councillor; President and Professor Imperial Military Academy of Medicine, St. Petersburg; Presi-

dent, Medical Council of the Empire ; Knight of the Orders of St. Stanislas, St. Anne, St. Vladimir, and Prince Daniel.

POZZI, SAMUEL, M.D.; Professor, Faculty of Medicine of Paris ; Surgeon, Hôpital Bichat.

RAYE, Colonel DANIEL CHARLES O'CONNELL, M.D., Indian Medical Service ; late Professor Surgery, Calcutta Medical College, and Senior Surgeon, Calcutta General Hospital.

RODDICK, THOMAS GEORGE, M.D., LL.D.; Professor of Surgery, McGill University, Montreal ; Consulting Surgeon, Montreal General Hospital and Royal Victoria Hospital, Montreal ; Member of the Canadian Parliament ; Hon. Surgeon to His Excellency the Governor-General of Canada.

RUBIO Y GALI, FEDERICO, M.D., Medical Councillor ; Member of the Royal Academy of Medicine of Madrid ; Founder of the Hospital and Surgical Institute, Madrid.

TILLAUX, PAUL, M.D.; Professor of Clinical Surgery, Faculty of Medicine, Paris ; Member of the Academy of Medicine ; Surgeon of the "Hôpital de la Charité."

WARREN, JOHN COLLINS, M.D., LL.D.; Professor of Surgery, Harvard University ; Surgeon, Massachusetts General Hospital.

WEIR, ROBERT FULTON, M.D.; Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York ; Surgeon, New York Hospital and Roosevelt Hospital ; President, American Surgical Association.

Six of the above surgeons so distinguished acknowledged the honour in the following speeches :

Professor Ernst von Bergmann, speaking in German, said : Mr. President, I beg to be allowed to thank you in the language of my country for the high distinction which has just been conferred upon us, the German-speaking surgeons. The language of one's native land comes direct from the heart, and it is in the language of our mother that we address our dearest on earth. The German-speaking surgeons have always sought their dearest and most cherished model in the constitution, organization, and achievements of the Royal College of Surgeons of England. Just as John Hunter by his own power founded the greatest and most beautiful anatomical and surgical museum, so have also his successors independently, and relying on their own resources, understood how to increase their rich inheritance in a wonderful manner, to accomplish great things brilliantly and always to march with the times. To be received by such men into such a Fellowship is an

honour than which no higher can be conceived. We all wish to express to you, Mr. President, our warmest and most cordial thanks.

Professor Durante, speaking in Italian, said: In the name of my Italian colleagues and my own, I thank you, Mr. President, and the illustrious College which has invited us to this memorable festival. Our gratitude for the high honour which you have deigned to confer upon us this day is as deep as the traditions of the Royal College of Surgeons of England are noble, and as profound as its merits in the progress of science and surgical art are great. From this temple consecrated to science, of which the priests are always brothers and devoid of all unwholesome political bias, may I be allowed to proffer a respectful salutation to glorious and mighty Britain?

Professor W. W. Keen, of Philadelphia, said: Mr. President, my lords, ladies and gentlemen,—On behalf of my American colleagues and myself, it gives me great pleasure to return our very hearty thanks for the honour just conferred upon us. We regard it as the highest surgical honour we could receive, for "Praise from Sir Hubert is praise indeed." Though the Royal College of Surgeons of England has attained a venerable age, it is far from decrepitude. No better evidence of this could be found than the many Members and Fellows who at the call of duty so cheerfully went to the front in South Africa. Foremost among them was your distinguished President, who, though he has reached an age when most men seek repose in slippered ease, responded to his country's call with his customary energy and alacrity. Happily the war is now nearing its end. Apart from any political results in South Africa, it has had two results in which we may well rejoice. It has bound together Great Britain and her Colonies in one solid Empire, and through the wise statesmanship of the most noble Marquess of Salisbury and His Excellency the American Ambassador has now joined Great Britain and America in a firm moral union, in which Her Majesty, if not monarch of our persons, is surely Queen of our hearts. We come to you as representatives of four of our great institutions of learning—from Harvard, hoary with the snows of nearly three centuries, to Johns Hopkins; in the Physicians of Philadelphia, I represent also the oldest institution in lusty youth of less than three decades, as President of the College of America at all similar to your own, a corporation which includes surgeons as well as physicians, and which was already in its teens when the Royal College of Surgeons was founded. On behalf of these and of all our medical institutions, we bring you our heartiest greetings on this festal occasion in the name of sound learning and accurate scholarship. It has been my pleasure in Philadelphia to welcome many of your Fellows, including three of your most distinguished Presidents. Some of

you have even swept across the continent in luxurious palace cars in but little over a hundred hours. To show how swift has been our progress and yet how young we are, I need but recall the fact that this College was nearly forty years old before the name of Chicago, now a city of nearly two million people even appeared upon the map; and when you were founded, beyond the fringe of civilization on the Atlantic coast, the only inhabitants of the vast region from the Alleghanies to the Golden Gate were the buffalo, the bear, and the savage Indian. But though so young, we come not empty handed. Three great medical advances mark the past hundred years—vaccination, anæsthesia, and antiseptis. The first and third of these are yours, but the second—anæsthesia—is the gift, better than Magian gold and frankincense and myrrh, which to-day America lays on the altar of science. Before that historic date, October 16, 1846, the poor victims of the knife were bound hand and foot, and held in the grasp of sturdy men, but hand and cord could not repress the fearful outcries which filled the air. But at Warren's touch the thongs fell off; he spoke, and the stormy billows of this Gennesaret of pain were stilled; the peaceful blessed sleep of ether hushed every cry of pain. Then first was modern surgery made possible, and what was made possible by our Warren was made safe and successful by your Lister—no, not your Lister, but our Lister, for his name belongs to no age and no country, but to humanity. It is therefore with a special fitness that to-day you have conferred your honorary Fellowship upon the distinguished grandson of him who first demonstrated the blessings of ether to a suffering world. At the very time when this College was founded he was a student at Guy's Hospital, and his certificate of attendance, signed by Mr. Cline and Sir Astley Cooper, is in the possession of his grandson. Again, Mr. President, I beg you to accept our sincere thanks for the distinguished honour you have conferred upon us.

Professor Lannelongue, who spoke in French, said: To praise the Royal College of Surgeons of England, with which we have just become connected, and the Centenary of which you are at present celebrating, would be to exalt one's own merits. The duty of a foreigner on whom such a great honour has been conferred, should be that of merely expressing his gratitude. However, there are in your past history as a surgical body during this century such achievements to be chronicled, that the very mention of which in a few words may not be displeasing to you. A journey fraught with interesting consequences which was made to England by a famous French surgeon, Roux, showed what you were in 1814. He returned from his voyage with the friendship of a number of the followers of Hunter's methods, such men as A. Cooper, Ch. Bell,

Brodie, Travers, Lawrence, and with a knowledge of the secret of the ligature of great vessels, the resections, which were not practised anywhere else, flap amputations, finally the reunion by intention, facts which were forced upon him. Roux returned in a state of mind divided between admiration of your audacity and mistrust of it. He proclaimed the brilliant features of your practice in surgery, but also did not conceal its imperfections. Such was the origin of a scientific interchange of ideas and discoveries, which has never slackened between you and us. The proof of this was illustrated when on March 8th, 1847, Flourens discovered the anæsthetic action of chloroform, and a few months later, on November 10th, 1847, Simpson of Edinburgh, employed this agent on man with admirable results. As early as 1852 Clover praised ischæmia, which does not in any way detract from the merits of Esmarch. And did not ovariectomy flourish in England when there was nothing but failure elsewhere? Another journey was necessary—that of Jules Worms and Nélaton in 1860 to impel convictions. In short, you have had a man at the right moment who was able to understand the work of a Pasteur and to appropriate his principles, and thus to establish modern surgical antiseptics. Gentlemen, to be associated with you is one of the most enviable honours, and we thank you.

Professor V. Pachoutine, of St. Petersburg, who spoke in English, said: I observe amongst the number of illustrious surgeons of many nations elected Honorary Fellows of the Royal College of Surgeons the names of some of the surgeons of Russia. This is a great honour to Russian surgical science, which, although in its youth, has already on its roll of glory the great name of Pirogoff. I take this opportunity to express to this greatly-esteemed College in the name of all Russian surgeons their very sincere gratitude for the distinction conferred upon their countrymen, and on their behalf further to express the wish that the Royal College of Surgeons of England may continue to flourish and to give to the world illustrious men, who like their predecessors will be shining lights to the surgical science, ever opening new roads for surgical practice to the benefit of the human race.

Professor T. G. Roddick, of McGill University, said:

“Mr. President, my lords, Fellows of the Royal College of Surgeons, ladies and gentlemen,—On behalf of my colleagues from Canada and myself I return thanks for the great distinction conferred upon us today by your illustrious body on this, the one hundredth anniversary of your foundation. The Honorary Fellowship of the Royal College of Surgeons of England is unquestionably the greatest honour that can be conferred on any Colonial surgeon, or indeed on any surgeon no matter whence he hails. Be assured, Sir, we are not so selfish as to appropriate

this great compliment entirely to ourselves. We take it that we have been selected from the two great centres of education and commerce in Canada to represent the universities of Laval, McGill, and Toronto, and in a measure to represent generally the medical profession of that now far-famed Dominion. We feel that in conferring this distinction upon us you have to-day forged another link in that great chain of British Imperialism which is surely and rapidly encircling our globe. We see in your action a desire to further that great scheme of reciprocity in medicine throughout the Empire, which we in Canada especially are most anxious to establish. We hope to be in a position soon to submit to your General Medical Council a well-digested plan which we trust will be acceptable to that very representative body. Thus will Colonial graduates meet the graduates of the Mother country on an equal footing in the army and navy, and in connection with the various Colonial and Indian appointments, from which they are now practically debarred." Dr. Roddick concluded his remarks by referring to the work of the President and his associates in South Africa.

THE BANQUET.

A banquet was held in the Hall of Lincoln's Inn on Thursday, July 26th. Sir William MacCormac presided, and there were also present the Honorary Fellows of the College, including the Prince of Wales, Lord Salisbury, and Lord Rosebery; the Duke of Cambridge, the Portuguese Minister, the Earl of Kimberley, the Lord Chancellor, the Duke of Northumberland, Earl Spencer, the Bishop of London, Lord Lister, Lord Kelvin, Lord Rothschild, Lord Strathcona, the Lord Mayor, the President of the Royal College of Physicians, Lord Davey, Lord Alverstone, the Hon. Walter Rothschild, Sir H. Roscoe, the Solicitor-General, the members of the Council of the College, a large number of the Fellows of the College, and others in such numbers that the whole company exceeded 300. The Master of the Society of Apothecaries was unavoidably prevented by illness from accepting the invitation.

The Chairman, in proposing "The Health of the Queen," said he knew of nothing more touching or soul-stirring than to hear, as he recently had heard them in some distant and lonely land, perhaps in front of the enemy, the strains of our National Anthem. He asked them to drink with all enthusiasm the health of the best of women and the greatest of Queens.

The toast was enthusiastically drunk, the band playing the National Anthem.

The Chairman then gave "The Prince and Princess of Wales and the other members of the Royal Family." A large part had been taken in the public life of this country by His Royal Highness the Prince of

Wales, and he had earned the cordial goodwill, respect, and affection of all his fellow-countrymen. This was not only due to the fact that His Royal Highness was the Prince of Wales, but because his incessant labour for the public good had earned for him profound respect and esteem. As for his beloved Princess, every Englishman and every Englishwoman entertained for her the deepest admiration. Her charitable impulses carried her into all good things, and this country had been great because of them. They had there present among them the Duke of Cambridge. At this moment especially those present would like to honour him, for there was not in the whole wide scope of Her Majesty's dominions a man more whole-hearted and true and more deserving of the respect and admiration which His Royal Highness universally commanded.

The toast was duly honoured, the band playing "God Bless the Prince of Wales."

The Prince of Wales, who was received with loud cheers, said in reply: Mr. President, my Lords, and Gentlemen,—I rise to respond to the toast which has been so kindly and cordially put from the chair. In my own name, as well as in that of the Princess of Wales, and also of my illustrious relative, I beg to tender to you our warmest thanks for the way in which it has been accepted by this large and distinguished company. I appear before you to-night in a totally new capacity. I have received the high honour and privilege of having been admitted into this great and distinguished society as an Honourary Fellow of the Royal College of Surgeons of England. I had already received that privilege from the Royal College of Physicians, and I am glad to think that I may now be considered as one of you all, and belonging to the two professions which give way to none in value and in the good they do to mankind; but I fear that I shall never be allowed to practise as a surgeon, as the result, I am afraid, would not be satisfactory. I might be guilty of manslaughter, if not of murder, and I do not think that even my learned friend the Lord Chancellor could help me out of the difficulty; but I appreciate the honour greatly. There is no profession in this world I admire more than that of surgery. The progress made in that profession has been enormous, and greater, perhaps, than that of the sister profession. My old and valued friend, Sir William MacCormac, to whom I am indebted for his great care two years ago when I met with an accident, has just returned from South Africa. I am sure all of us appreciate his having given up his duties here to go through the hardships of that great campaign, from which he has brought back much information, and in which he has given great assistance; nor can I forget the name of my friend Mr. Treves, who rendered great service. All of us have been desirous of doing our best to alleviate the sufferings out there and of those who have returned home, and no more noble

work has been done than that of the surgeons, military and civil. It is not for me to criticise anything that may have been said of the great profession which did its best in this campaign, but I am sure that it did do its best. It had difficulties to contend with, and the way in which the hospitals were managed out there, and have been managed since the return of the sick and wounded home, does the greatest credit and honour to the profession. I thank you for the high compliment you have paid me in inviting me to be present at the hundredth anniversary of the society, and electing me an Honorary Fellow of it.

The Chairman next proposed "The Honorary Fellows of the College." He said: This is the first time this toast has been proposed, as it is only quite recently that we obtained the necessary authority to grant these honorary distinctions. We attach great value to them, and it was our wish to bestow the highest honour in our power on the distinguished persons who have just been made Honorary Fellows of our College. There can be no doubt that the importance and success of this Centenary have been greatly enhanced by the exercise of these powers. We are greatly gratified at being able to bestow these honours, and there can be no question that the position of the College is strengthened by the inclusion in its ranks of so many distinguished persons. The Prince of Wales, who stood first upon their roll of honour, had been already received with enthusiastic acclaim. All knew his generous sympathy and interest in the affairs of the College, and his desire that the Centenary celebration should prove worthy of the College and the occasion. He trusted it had been so. Their great countryman, Lord Salisbury, had spared time from the urgent affairs of State to come and do them honour. They were deeply grateful to him, and had tried to make what return was in their power not only to that great statesman, but to that altogether admirable chemist, a branch of science of such great importance to medicine. Lord Rosebery's great gifts were known to them all. He was lately asked by an eminent physician to tell him the principle which had guided the Council in their selection, as Honorary Fellows, of Lord Salisbury and Lord Rosebery, and his reply was that Lord Salisbury was an eminent man of science, and that Lord Rosebery was eminent in everything else. All the other Honorary Fellows were surgeons, the elect of their profession, the glory of their several countries and the pride of this College. He congratulated them on their newly acquired distinction, and he congratulated the College on the distinction they bestowed upon it. He proposed that they should drink to the health, long life and happiness of the Honorary Fellows of the Royal College of Surgeons, and he coupled with the toast the name of one of them, the Earl of Rosebery.

The Earl of Rosebery replied.

Mr. Thomas Bryant proposed "The Guests," who were, he might honestly say, the choicest representatives of every learned, scientific, artistic, and useful branch of human endeavour that this metropolis could supply. The Council had been led to make this selection under the conviction that the distinguished Honorary Fellows of the College whom they had been invited to meet were men of equal calibre. For the three professional, but not practical Fellows who headed the list were men whom all the world delighted to honour, and who honoured the College by becoming Fellows, and thus partaking of its interests, whilst the remaining Fellows were the leading practical surgeons of the European and American States, and of our own much-beloved Colonies. In fact, they represented, with the Fellows of this College, the working bees of the surgical profession, which utilised to the full every science and art which the visitors so ably cultivated and culled from all branches of human industry—everything and anything that could possibly help towards the investigation, prevention, and cure of disease, or the relief of pain. Indeed, he liked to think of them as the representatives of applied science for the benefit of mankind. They recognized no rivalry, but only friendly competition, which, it was to be hoped, under the banner of the Fellowship of the Royal College, would be encouraged for the benefit of all the world. The name that he had to couple with the toast was the representative of all that was good and all that was great in this highly-favoured Island State, the Lord High Chancellor of England, Lord Halsbury.

The Lord Chancellor said he was the feeble mouthpiece of the feeling which pervaded all his fellow guests for the magnificent banquet to which they had been bidden that evening. He did not know what the results might be, and he felt some regret that they could not look for assistance in their possible infirmities from any of the persons who had been newly endowed with the imprimatur of that society, but he hoped that if their exuberant hospitality put any of the guests in difficulties the sister society would help them.

The Marquis of Salisbury proposed "The Prosperity of the College of Surgeons," and Sir William MacCormac replied to the toast in graceful terms.

The company shortly afterwards separated. To each guest were presented two volumes. One is a souvenir of the College of Surgeons, and contains an account of the first incorporation, and a brief history of the College from 1800 to 1900. It describes the College building, the incomparable museum and its various departments; mentions the conservators who have presided over the museum; and describes the examina-

tions of the College, its trust funds, lectures, and the portraits and busts which are found within its walls. The value of the volume is much enhanced by the many excellent engravings with which it is illustrated. The second volume contains the address of welcome delivered by Sir W. MacCormac at the presentation of honorary diplomas in the theatre of the old buildings of the University of London, Burlington Gardens, and a particularly valuable collection of appreciative biographical notices of the Masters and Presidents of the College since its foundation in 1800 to the present time. Both volumes are splendid specimens of printing, and are handsomely bound ; and their distribution was a glad surprise to the recipients.

One of the chief features of the various functions of the Centenary celebration was the presence of so many of the foremost surgeons of Europe, the United States and Canada. Two Australian surgeons also would have been present but for the exigencies of the war in South Africa. Altogether the Festival was a great success, and may be expected to bear good fruit for the profession both of a national and international character. Its excellent organization throughout reflects the greatest credit on all who arranged its several details.

RETROSPECT OF CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Angina Pectoris.

CLIFFORD ALLBUTT, M.D. "Angina Pectoris." *Philadelphia Medical Journal*, June 16th, 23rd, 30th, 1900.

The group of cases described by Allbutt are sketched in the following terms. "The group which we name thus consists, in the great majority of cases, in a peculiar pain often attributed to the heart, but in its chief seat retrosternal, and running thence in the course of certain spinal nerves, in an imperious arrest of movement, and in a sense of impending death, or at any rate, in a peculiar dread; sooner or later indeed, the disease is generally, if not always fatal, in its own peculiar manner. When we inquire farther we find good reason, in nearly all cases to infer the existence of certain structural changes, such as coronary or aortic atheroma; and frequently, though not perhaps necessarily, such decay of cardiac structure as coronary atheroma and other causes of atheroma are wont to induce. Beside these eminent features there are certain negative peculiarities; for instance the dyspnoea characteristic of heart disease is not evident in angina—the attitude is one of terror-stricken stillness. Omitting aberrant cases and secondary and subordinate features, such is angina pectoris."

"'Tobacco angina' is not the result of organic disease, it is not fatal, it does not arrest the patient in the same imperious grip, its clinical features and course are different, it is a paroxysm of persistently manifest cardiac perturbations, it probably depends on toxic causes of quite another kind and consequence, and it disappears with the elimination of its cause."

Although coronary atheroma and cardiac degeneration are common, angina is a rare disease. There is something in angina which separates it from cardiac disease and from the spasmodic neuroses. Structural disease of the heart itself is not indispensable. Patients attacked in

early life may in rare cases recover; and over the age of 50 they may survive for 15 or 20 years."

Allbutt does not regard vaso-motor changes as the cause but rather the result of angina, pointing out that any form of severe pain is accompanied by pallor and sweating. Pseudo-angina is frequently accompanied by vaso-motor changes and in such cases it is quite in accordance with experience that the vaso-motor centre should be less stable, and that when the vaso-motor centre is disturbed that the neighbouring respiratory centre should be also affected and so cause the "pseudo" dyspnoea.

In angina the site of the pain is rarely cardiac but rather retrosternal, about the root of the aorta. In some cases there may be pain over the heart but such a pain is more characteristic of the false disease or of the enlarged and labouring heart.

The pain, although almost invariable, is not an essential sign. A case is quoted of a gentleman of 45 in whom vague sensations about the heart were followed by a pain in the left palm coming on during exertion. Although there were no signs of disease in the heart or arteries attacks of true angina developed later. In another case the early symptom of the disease was a sense of weakness and discomfort in the arms, coming on for the first time during the exhaustion following prolonged dancing. Pain is sometimes felt in the epigastrium and such cases seem to be peculiarly fatal.

Although Allbutt is inclined to believe that angina may occur without any permanent static change, yet it usually is associated with permanent organic diseases of the aortic area, such as aortic insufficiency and stenosis, atheroma, coronary disease and aneurism; as though there were some tie between the causes of angina and these aortic conditions. Mitral regurgitation supervening in the course of angina usually mitigates the disease, probably owing to the fall of blood pressure.

Speaking of the character of the pulse during an attack of angina, Allbutt has not found any constant or characteristic variation of the pulse, although he has had the opportunity of examining the pulse in six cases, and of making repeated examinations in several of them. The sphygmograph is quite incapable of analysing the classical tracing taken by Brunton, and the inference that high tension was present was quite unwarranted by the facts. Putting the different accounts together it may be taken as agreed that the pulse is usually unaffected during an attack of angina, although from the class of cases attacked the pressure is generally high, altogether apart from angina. In some cases, even in pressure, the pulse continues unchanged; in others it is slowed or quickened a little, or its pressure rises, or it halts or flutters for a few

beats. In the current hypotheses of angina these facts relating to the pulse are too often entirely disregarded.

A series of morbid changes, known best in the horse as intermittent claudication, are often cited in illustration of the nature of angina. This theory might be used to explain the final and fatal attack, but it is hardly satisfactory in ordinary attacks in which there is practically no disturbance of the pulse, or at any rate no more disturbance than occurs in flatulent dyspepsia or in irritation of a sensory nerve. Claudication again does not explain the essential feature of pain; so far as is known thrombosis of a coronary vessel does not cause pain, but it must be admitted that observations on this subject are not numerous.

Cramp of the heart is often regarded as the exciting cause of the attack, but here again the regular beat of the heart is strongly opposed to such an origin. The cardiac muscle is regarded as being incapable of cramp, its quality of rhythm being too deeply implanted to allow of any such departure from its normal action. The doctrine of dilation does not receive any support from the acute dilation which occurs so commonly in cases of over exertion, pain anything like that of angina being constantly absent. The pale pinched face of angina is in strong contrast to the cyanosis and dyspnoea of dilation, so that this view receives no support from symptoms.

The view advanced by Allbutt is that the pain of angina is a referred pain, not cardiac but aortic in origin. Cases of aortitis accompanied by intense pain are cited in support of this view. Recently published cases of pericarditis involving the base of the heart and accompanied by intense pain lend a strong support to this view, as also a case of the author's in which acute rheumatic aortic disease was accompanied by intense attacks of angina.

Although disease of the coronary arteries is frequently found in angina the association is not invariable; and conversely the disease of these vessels is frequently present without pain. The essential feature is probably disease of the root of the aorta.

The fatal termination of an angina is regarded as being secondary and quasi-accidental, and comparable to the fatal termination sometimes seen in gall stones, or resulting from a blow on the abdomen or on the testicles.

This explanation fits in well with the fact, recently emphasised by Musser, that the onset of mitral regurgitation is usually associated with a disappearance of the painful spasms of angina; it also accords with the well known action of the nitrites in relieving the pain of angina, the tension in the aorta being lessened in both cases.

The question to solve is why attacks of angina occur in some cases of

disease of the aorta and not in others. It may be that in some instances the functions of the nerves are gradually lost and rendered gradually insensitive. It seems likely, judging from the scanty evidence, that angina occurs chiefly when the first inch of this vessel is affected, and it is in just such cases that the coronary vessels or their orifices would be implicated, and the nerves of the cardiac plexus involved.

Influenza and Chronic Heart Disease.

PROFESSOR SCHOTT, Bad Nauheim. "Influenza and Chronic Heart Disease." *Ber. Klin. Woch.*, 1900, No. 21.

Owing to the tendency of the public to attribute any ailment to a former attack of influenza, much care must be exercised before accepting such statements as correct. Schott only admits for discussion such cases as he has himself followed from the onset, or in which a definite statement from the medical attendant has been obtained.

There is a general agreement that cardiac neuroses, both motor and sensory, are by far the most common cardiac manifestations of influenza. Although many such conditions pass off, yet a not inconsiderable percentage of such cases are of a more serious nature. In the majority of such instances where a rapid pulse rate occurs the blood pressure is low and may continue so for weeks. There is dirotism, and often cardiac weakness is indicated by the presence of arrhythmia or allorhythmia. The pulse rate again is often unduly rapid in proportion to the temperature, and much higher than in other infectious diseases.

Bradycardia is observed with remarkable frequency, and as in tachycardia is often associated with irregularities in the volume and rhythm of the pulse; dirotism is unusual but a low blood pressure is not uncommon.

A change from tachycardia to bradycardia or vice-versa is not uncommon. Most commonly the tachycardia of the febrile period passes in a few days to bradycardia, but the reverse change is occasionally seen, a tachycardia coming on in consequence of over-exertion or mental disturbance, or as a consequence of the use of tea, coffee or alcohol; sometimes the change comes on rapidly without obvious cause.

These neuroses are sometimes precursors of further cardiac change. Cardiac weakness shows itself in the production of dilatation, coming on spontaneously or in consequence of trivial causes. Slight physical exertion or mental excitement may suffice to set up an increase of cardiac dulness of one or both ventricles, and a dull or impure first sound is sometimes noticed. The occasional persistence of such disturbances is illustrated by the case of a professor of medicine, who for several years

was subject to attacks of tachycardia and accompanying dilatation, after a severe attack of influenza.

The sensory neuroses are less common than the motor. Schott has not observed vaso-motor changes nor have they been described by others in connection with influenza. Cardiac pain on the other hand, both in the form of pseudo-angina and true stenocardia, is often observed. Pains of this character may occur on the first day of the disease and be of great severity. Although referred to the heart by the patient yet tender points are sometimes found over and on each side of the sternum.

True angina in comparatively young people free from arterial disease, although not common, has been described by a number of observers. The first attack comes on during the early stage of the malady and recurs once or more. Apart from the fact that influenza angina occurs chiefly in men under 40 and who are free from evidence of arterial disease, it presents no distinguishing point from true angina, and in its further course it runs a course precisely like that malady, and is by no means the benign affection described by some writers. Schott has observed in such cases a rapid development of sclerosis of the temporal and radial vessels, rapid aging of the individual and marasmus, such as has been described in the nervous sequelæ of influenza.

Neurasthenia of the heart is frequent, and like other neuroses is the result of the influenza poison on the nervous system.

The action of the grippe toxins on the heart muscle is a depressing one, and cardiac weakness is apt to develop during convalescence from any want of care. Indeed a permanent dilatation or fatty or parenchymatous changes may follow influenza, although in most of such cases some other factor can be found leading to cardiac weakness. Acute cardiac dilatation, described by French writers, must be a very rare sequel, but it is held responsible for certain cases of sudden death.

Valvular lesions from endocarditis due to influenza have been described by many writers, although they are not common. Schott has only seen two cases, one of aortic insufficiency and the other of a mitral lesion with symptoms pointing to cerebral embolism. Bacteria resembling those of influenza have been found in the cardiac granulations, but they have not been successfully cultivated.

Valvular disease in consequence of disease of the pericardium, pleura, and lungs, or as a consequence of acute rheumatism, are much more common, and are due to mixed infections. Cases are quoted illustrating the development of endocarditis from influenza pneumonia and also as the result of pericarditis following influenza. That the virulence of the influenza bacillus is probably increased by association with other bacteria is indicated by Grassberger's experiments where influenza bacilli

mixed with streptococci attained a larger size and were much more resistant to alkalis. Richter further found a luxurious growth of influenza bacilli when pus was present.

Especially predisposed to the more serious cardiac changes are fat or gouty people, and it is probable that gout is responsible for the large number of cardiac cases reported by British clinicians in connection with influenza.

The hearts of patients suffering from chronic cardiac disease are very liable to suffer from the effects of influenza. In valvular affections disturbances of compensation readily ensue, and in a number of cases a fresh endocarditis is added on. The altered valve seems to be a good culture-medium for micro-organisms, and the morbid process may spread to other valves, and, if the aortic valve is attacked there is a great liability to attacks of angina pectoris.

In cases of congenital heart disease a fatal termination is not infrequent in consequence of an attack of influenza, or in others a serious disturbance of compensation is induced. In myocarditis depending on arterio-sclerosis, in addition to inflammatory processes, disturbances of compensation and attacks of stenocardia may result.

The fatty heart readily passes on to fatty degeneration, and in its enfeebled condition it may dilate and reach a large size. Attacks of bradycardia may accompany the fatty heart, but, on the other hand, a tachycardia and dilatation is not infrequent.

Apart from acute rheumatism there is no malady which affects the heart so injuriously and in so many different ways as influenza, and the last decade has added much to our knowledge of its deleterious action on this organ.

Tuberculin and the Early Diagnosis of Tuberculosis.

B. FRAENKEL, Berl. "Tuberculin and the Early Diagnosis of Tuberculosis." *Klin. Woch.*, March 19th, 1900.

Koch in his original communication on tuberculin showed that healthy men do not react to tuberculin in doses not exceeding .01 g., although larger doses may induce reaction. Using .25 g. on himself, Koch produced a violent reaction both local and general.

In tubercular patients a dose of .01 g. produces a violent local and general reaction. There is fever often ushered in by a rigor and the temperature rises to 39, 40 or even to 41, C.; pains in the limbs, tired sensations, cough, and sometimes nausea and vomiting are also present. A slight icterus or an exanthem are occasionally seen. The attack begins four or five hours after the injection and lasts twelve or fifteen

hours. Exceptionally it may appear later and then runs a milder course. Gerhardt has shown that the reaction may occasionally be postponed for as much as thirty-six hours after the injection. In addition to the general reaction there is a local reaction, consisting in redness and swelling at the site of injection. In cases of superficial tubercular lesions such as lupus this reaction is very distinct. Before using the test the temperature must be taken every three hours in order to ascertain its usual level. After the injection the three hour observations are continued and a rise of even $\frac{1}{2}$ a degree (1 F.) indicates a reaction. If neither a local or general reaction follow, a second test is made using three or five mg., and if still negative a third with six or ten mg., the larger dose being employed when five mg. have been used at the second trial.

A positive reaction, general and local, is a certain sign of tuberculosis, whilst a negative reaction indicates a freedom from tuberculosis. Fraenkel considers that no harm can result from the careful use of tuberculin, and the advantages of making an early and positive diagnosis should secure for this method a more general use. Figures are quoted from Koch's paper showing the accuracy of the test, and the testimony of veterinary surgeons all goes to show the delicacy and accuracy of the test. Voges considers that errors occur in animals in only 2.8 per cent. of cases, and it seems not unlikely that even this estimate is too high.

Amongst the cases in which tuberculin is of value are those of suspected tuberculosis in which bacilli are absent from the sputum. Early cases of tuberculosis sometimes present the clinical features of chlorosis, and in the absence of physical signs in the chest are readily overlooked. In such instances a slight cough or loss of flesh may awaken suspicion of the true nature of the disease, and this can be confirmed by the use of tuberculin. Under the influence of this agent evidence of local disease may sometimes be detected at the apex. Scrofulous lesions in children again form a fertile field for the use of tuberculin. Rhagades about the nose or mouth sometimes give a definite local reaction. Owing to the difficulty of using the rhinoscope in children it is not very satisfactory to test cases of adenoid growths, but enlarged glands of a tubercular nature swell, whilst those of a non-tubercular character do not react.

In surgical cases owing to the superficial sites of the lesions a local reaction is readily observed, and in differentiating tubercular, syphilitic and cancerous conditions the tuberculin test is of the greatest value, particularly when a piece of the morbid tissue cannot be removed for microscopic examination.

On the Effects of White and Dark Meats in Chronic Renal Disease.

A. PABST. "On the Effects of White and Dark Meats in Chronic Renal Disease." *Ber. Klin. Woch.*, Nov. 25th, 1900.

Pabst has investigated, in two cases of parenchymatous nephritis, the action of dark and white meat, comparing them with a milk diet.

The preference for white meat in nephritis has been upheld by many of the older writers and has been supported lately by the authority of Senator. Others however, notably Offer and Rosenstein, do not regard white meat as preferable to dark, and indeed it has been shown that the former is often richer in extractives.

Pabst fed his patients for successive weeks on milk, white meat, milk, dark meat, and milk, at the same time recording the daily amount of urine and albumen, and estimating the number of casts. The results show a very trifling difference, from the use of different forms of meat in the total amount of albumen, in one case favoring dark and in another trial white meat. With a milk diet the total amount of albumen was often larger than with meat, and although this may have been an accidental coincidence, yet one case had three relapses with blood in the urine and fever, when on a pure milk diet.

F. G. Finley.

Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

Some time ago, in these columns, MONTREAL MEDICAL JOURNAL, August, 1899, p. 610, I referred to several subjects of practical moment both to the operating surgeon and to the general practitioner. I then promised a further note on these subjects, when experience with the different methods and agents there recommended would justify me in giving a working opinion on them. I will now try to fulfil part, at least, of that promise.

(1) Sterilization and Silk Ligatures and Sutures.

Surgeons are still on the outlook for the *ideal* ligature and suture material—one which will be completely absorbed after it has served its purpose in the tissues, and yet remain, meanwhile, aseptic and non-irritating. Catgut, plain or chromicised, is an absorbable material, but it is not an easy matter to sterilize it; and while we get at times perfectly satisfactory results from its use (say in the operation for radical cure of hernia), there are times when we find the whole buried line of catgut sutures infected, with, often, perfect union of the skin incision. "Faulty technique" you will say; and, therefore, "why blame the catgut?" There may be something in that; the more one operates the more one realizes that there is some truth in the dictum, "the soil is everything, the microbe nothing." It certainly makes a great difference whether or not you put your buried sutures or ligatures into clean cut, unbruised tissues, whose vitality is not impaired by excessive handling and tearing. Marcy, of Boston, insists most strongly on this, and shows that rapid, clean operating has much to do with speedy, aseptic healing. But after all has been said, it does seem to me, both from my own experience as well as from watching the results of my confreres in the hospital, that silk is a safer suture and ligature material than catgut. I still think silkworm gut or horse hair sutures best for the skin incision whence they are subsequently removed.

The silk I have used has been prepared as suggested by Hayler—first boiled, and then kept for forty-eight hours in alcoholic bichloride solution, out of which it is directly used at the time of operation. It has the further recommendation for the general practitioner that he can always prepare it easily for any operation and be able to rely on its asepticity. But will it be absorbed? Some surgeons maintain that

pure silk, being an animal product, will ultimately be completely absorbed if it remains sterile, and many facts certainly seem to show that it will.

I have also, through the kindness of Dr. D. P. Anderson, assistant pathologist to the Montreal General Hospital, had some cultures made to test the celluloid thread of Pagenstecher (*vide* MONTREAL MEDICAL JOURNAL, March, 1900, pp. 209). Dr. Anderson showed that if the thread was kept in alcohol without previous boiling, it was sterile; and very limited trial of it used in that way as a skin suture, points to the same conclusion. If further experience shows the truth of this it will be a valuable addition to the surgeon's armamentarium, because it is a very strong material (linen thread coated with celluloid), and if not boiled but used directly from alcohol it should be aseptic on account of its celluloid coating, which boiling removes, but alcohol hardens. That it will ever prove an absorbable material for buried sutures I very much doubt.

(2) A Plea for the Further Use of Carbolic Acid.

(MONTREAL MEDICAL JOURNAL, January, 1900, p. 67.)

We have fairly tested Dr. F. J. Adams' plan of using pure carbolic acid, subsequently neutralising it by absolute alcohol, on the skin over infected areas, *e. g.*, cellulitis, buboes, carbuncles, erysipelas, etc. In not one single instance has it in our hands arrested the inflammatory or suppurative processes. Indurated buboes went on cheerfully to supuration, though the skin over the tumour was daily whitened with carbolic acid, neutralised in two minutes with alcohol.

But one thing we have proved to our complete satisfaction, and we can confidently recommend to any one who has to deal with localised infective conditions (and what practising physician has not?), and that is that if the infected cavities are opened and the necrotic inflammatory tissues swabbed with pure carbolic acid, neutralised after a minute or so with pure alcohol, the infective process ceases and healthy granulations will replace the sloughing areas in a very short time. By this means we have certainly very materially lessened the time of convalescence in these cases as well as simplified the operative procedures. We have used carbolic acid in this way upon the most delicate tissues, *e. g.*, brain tissues, bowel, etc., and have had nothing but the best results. It has put a new method into our hands for the treatment of acute localised infectious conditions in whatever part of the body they may be found, but it must be applied directly to the infected area and not to the skin over it, to reap any benefit from its employment.

J. M. Elder.

Dermatology.

UNDER THE CHARGE OF G. GORDON CAMPBELL.

Roentgen Rays in the Treatment of Skin Diseases.

WM. ALLEN PUSEY. "Roentgen Rays in the Treatment of Skin Diseases and for the Removal of Hair." *Journal of Cutaneous and Genito-Urinary Diseases*, July, 1900.

The untoward effects resulting from the use of the Roentgen rays in surgery suggested to many observers in various countries the possibility of turning this property to account in the treatment of skin diseases. Very soon after the general adoption of this method of diagnosis, cases were reported in which lesions, varying from mere blanching of the hairs to necrosis including the deeper tissues, were produced by exposure to the X-rays; and it was felt that, if this destructive effect could be controlled, a valuable therapeutic agent would be gained. Pusey, in this paper, gives a very comprehensive review of the work done in this direction and also gives practical instruction regarding the kind of tubes, length of exposure, etc., which have been found most suitable for the purposes of the dermatologist.

This form of treatment can be made use of in four classes of affections:—

"(1) In hypertrichosis, for the removal of undesirable hair.

(2) In disease of the hair follicles, such as sycosis, tinea tonsurans, favus, where the removal of diseased hair is an essential part of treatment.

(3) In the treatment of inflammatory affections, like chronic eczema, where the purpose is to stimulate the tissues and cause absorption of inflammatory products.

(4) In certain specific affections, like lupus, where it is desired to cause destruction or absorption of tissues of low vitality."

The removal of hairs by this method is greatly simplified and has great advantages over electrolysis. It is not painful, and very much larger areas can be denuded at one or two sittings. The skin, too, with the exception of a transient pigmentation and erythema, is left in the same condition as before. Experience seems to show that there is less likelihood of regrowth, many cases having been reported in which more than a year has elapsed without any appearance of new hair.

In parasitic diseases, such as tinea tonsurans, where the removal of the

diseased hairs is rendered more than ordinarily difficult by the liability there is to their breaking off and leaving the diseased root in the follicles, such a method has immense advantages, as the effect of exposure to the rays is to loosen the hair so that it can be removed without exerting any force. Moreover, it is thought that the rays have a marked bactericidal effect.

Several cases of intractable chronic eczema have been reported as rapidly healed by this method of treatment. The stimulation of the skin was thought to have led to the absorption of the inflammatory products. Pusey fears that this method will have a very limited field of usefulness in the treatment of eczema.

It is in regard to lupus, however, that the most favourable results have been obtained, and quite a number of cures have been published. Schiff, Kummell, Albers-Schönberg, Jones, and others have reported cases in which more than a year has passed without any recurrence of the disease. In a case reported by Jones of San Francisco, "one ulcerating point had been protected from the rays for the purpose of a control observation; when the other areas had healed this showed slight increase in size. This patch healed after three weeks of treatment." The effect is generally held to be due to the actinic rays, and from the striking similarity in the results obtained, there "is great likelihood that this method and Finsen's treatment by the ultra-violet rays of white light are identical in principle."

Just what changes are produced by the X-rays in the tissues so as to lead to the effects obtained has not yet been fully worked out. Darier, by a study of the effect of the Roentgen rays on the skin of guinea pigs, demonstrated that the tissues showed (1) enormous thickening of the epidermis in all its layers and (2) atrophy of the hair follicles. Pusey states that "the hair follicles and the connective tissue envelopes are particularly sensitive and react first to the irritation of X-rays. This is more than ever the case if the follicles are already the seat of disease. To this extent and to this extent only, X-rays may be said to have a selective action on the hair follicles in inflammatory affections like psycosis and tinea tonsurans."

The advantages which this method seems to offer for the treatment of lupus may be briefly summarized as follows:—Efficacy, freedom from pain, and the character of the scars. The latter are "soft, pliable, and thin, and nearly approach the normal skin in appearance."

There seems to be the same selective action in regard to lupus. The diseased areas become reddened and inflamed before the healthy surrounding tissues are affected at all. The "specific tissue of the lupus nodules is of such low vitality that the influence of X-rays may cause its

absorption or even destruction before having any considerable effect upon healthy tissue."

With regard to the use of the Roentgen rays in practice we copy Freund's directions as translated by Pusey. The conditions to be avoided are :—

"(a) Too great strength of the primary current; one never uses a current of more than one and one-half amperes and twelve volts' strength. This is, of course, much weaker than the currents used for skiagraphy.

(b) Too great tension of secondary current; one never uses an inductor of more than thirty cm. spark length.

(c) Too long and too frequent exposures.

(d) Not sufficient distance between skin and tube."

At the beginning the sittings are not longer than five minutes and the distance of the tube not less than fifteen cm. Freund recommends for the attainment of the best results the use of a mechanical interrupter, run at the rate of 800 to 1000 interruptions per minute. The surfaces which are contiguous to the areas to be treated are protected by lead masks.

The evidences that the exposures have been carried far enough are:—

(1) The appearance of erythema or pigmentation.

(2) Blanching of the hair.

(3) Loosening of the hair.

The Visceral Lesions of the Erythema Group.

OSLER, WM., M.D. "The Visceral Lesions of the Erythema Group."
British Journal of Dermatology, July, 1900.

In 1895, Dr Osler published a series of eleven cases which he classed as erythema exudativum multiforme characterised by a variety both of skin and visceral lesions and by arthritic manifestations. Besides the more commonly met with skin lesions of erythema multiforme, these cases showed the characteristic eruptions of purpura, urticaria and angio-neurotic oedema. The visceral lesions consisted of "(a) local serous or hæmorrhagic exudate in the walls of the stomach or bowels, causing (1) crises of pain and (2) hæmorrhages; (b) acute nephritis; and (c) certain rare pulmonary and other lesions." The arthritic were "infiltration of synovial sheaths, periarticular tissues and arthritis." In the present paper the author gives the subsequent history of one of the numbers of the first series, and reports seven additional cases. He also analyses the symptoms of the whole eighteen cases and discusses the group of affections known collectively as erythema multiforme.

The case referred to, of which a further history is given, is briefly as follows :—A young lad came first under notice in his tenth year for

severe attacks of colic which were accompanied by urticaria. During his eleventh and twelfth years the attacks of colic continued and were always associated with either urticaria, purpura and urticaria, or circumscribed œdema. He had also signs in the lungs, leading to the suspicion of pulmonary tuberculosis, and an enlarged spleen. In his thirteenth and fourteenth years, the pulmonary manifestations were more marked, and he died in his fifteenth year of pronounced emphysema, bronchopneumonia, dilatation of the heart and pericarditis. Examination of the sputum for tubercle bacilli was always negative. The second series of cases was as follows:—

Case 12.—Neurasthenia; dilatation of the stomach; colic for two years at intervals; exudative erythema; leucocytosis.

Case 13.—Attacks of colic every week or ten days for six months; on admission typical lesions of erythema exudativum multiforme; high fever; improvement; recurrence; pains in the joints; arthritis in one finger.

Case 14.—Man aged 57, from twentieth year every few months attacks of vomiting nausea, and abdominal pain, associated with outbreaks of urticaria; no hæmorrhages from the mucous membranes; final attack with purpura and urticaria; much vomiting and profuse and fatal hæmorrhage from the stomach, with blood in the urine and passage of blood by the stools.

Case 15.—When a lad, one attack of hemiplegia with a aphasia lasting for a week; within a year five or six attacks of transient hemiplegia; history of migraine in 1896, and a mild attack of rheumatism; angio-neurotic œdema of the upper lip; outbreaks of urticaria; in 1897, attack of abdominal colic with pains in the legs and an outbreak of purpura and urticaria; in 1898, hæmaturia and albuminuria.

Case 16.—For three months attacks of pain in the abdomen with vomiting; swelling of the joints; purpura; recovery.

Case 17.—Following influenza, in January, attacks of arthritis with cramps in the abdomen and an outbreak of urticaria; eight attacks between January and May; during stay in hospital, swelling of wrists and back of hand; erythema; urticaria, spontaneous and factitious; no purpura; recovery.

Case 18.—During first year swelling of the knees; from second to seventh year, frequently recurring attacks of pain in the abdomen with vomiting and with swelling of the knees, but no skin rash; following vaccination attack of great severity with extensive lesions of erythema, purpura, and urticaria; melæna; recovery; recurrence of the skin lesions; enlargement of the spleen.

Osler, in his analysis of the symptoms, considers first the visceral manifestations, of which the gastro-intestinal crises were the most constant

and most distressing though not the most dangerous. They took the form of colic, either alone or associated with vomiting, with both vomiting and diarrhoea, or with melæna or hæmatemesis. The attacks were, as a rule, accompanied by some one of the forms of skin lesion, often by several. The author thinks "it is reasonable to suppose that the lesions causing the pain in the abdomen are associated with the formation of wheals and swelling in the mucous membrane of the stomach and intestines," and quotes several authors who hold the same opinion with regard to the origin of such attacks.

Acute nephritis occurred in six cases and chronic nephritis in one, while the fatal termination was brought about in two by this complication. Hamorrhages from the mucous surfaces occurred in six cases, most frequently from the bowels. In two of the cases the occurrence of cerebral symptoms (recurring hemiplegia in one), immediately preceding the crises and skin lesions, led the author to attribute their origin to "changes in the brain of essentially the same nature as those which subsequently occurred in the lips and skin." Although in only one case of this series was there a pulmonary complication, reference is made to the association which has been noted between urticaria and asthma.

In connection with the skin lesions, the author points out that they vary widely from time to time in the same individual, or again they may be absent and the recurrent attacks for a time be evidenced only by the visceral manifestations. Arthritic symptoms, the various forms of which have been already referred to, occurred in ten of the eighteen cases. In one case a polyarthritis of great severity simulated acute rheumatic fever.

In discussing the "mutual relations of the members of the erythema group," Dr. Osler draws attention first to the affinity between "exudative erythema, Henoch's purpura, peliosis rheumatica, urticaria, and angio-neurotic œdema," as shown by "(1) the similarity of conditions under which they occur, (2) the identity of the visceral manifestations, and (3) the substitution of these affections for each other in one and the same patient at different times." Widely different conditions seemed to be the exciting causes of the disease in his series of cases; so much so that it was impossible to classify them etiologically. He does not look upon the arthritis as necessarily of rheumatic origin. Schönlein's peliosis rheumatica and Henoch's purpura, he thinks, may be regarded as hæmorrhagic types of an exudative erythema. Angio-neurotic œdema should certainly be classed as one of the forms of the erythema group.

The author, in concluding this extremely interesting paper, very pertinently remarks "What is needed, in truth, is a dermatological Linnæus, to bring order out of the chaos at present existing in the group of erythemas."

Pediatrics.

UNDER THE CHARGE OF A. D. BLACKADER.

Purulent Vaginitis in Children.

CHARLES A. ROSENWASSER, M.D. "Remarks upon the Diplococci Resembling Gonococci found in the Normal Vagina of Children."
Archives of Pediatrics, July, 1900.

Physicians connected with out-patient hospital work among children are often struck with the large number of cases of purulent or mucopurulent discharge from the vagina in young female children. It occurs more often perhaps in those whose general condition is below par, but in a majority of instances the cause cannot be detected. Rosenwasser, in this article, points out that the matter is worthy of more careful investigation. His attention was called to the subject by the occurrence of three cases in the Mount Sinai Hospital of supposed true gonorrhœa, for which a careful investigation failed to discover any source of infection.

On looking into the previous work done on the subject, he found that a diplococcus, resembling the gonococcus but not decolourising by Gram, had been found in the apparently healthy urethra of males and vagina and urethra of females, by many independent investigators. In the three cases under his care, spreads showed the presence of extra-cellular cocci, diplococci and bacilli as well as intracellular organisms of like morphology which did decolourise by Gram, as well as many which did not. He thinks that, as the gonococcus is acknowledged to be subject to many variations in form, it is likely that the condition in some cases of vaginal discharge is caused by an attenuated or not fully developed gonococcus, which does not fully react to Gram; and suggests that future investigations may show that these micro-organisms are but different stages in the development of one organism, in other words that these cases of purulent vaginitis are in reality gonorrhœal in origin. It seems to us that the difficulty in accounting for their occurrence etiologicaly is not lessened by this explanation.

An Antitoxin for Scarlet Fever.

WILLIAM J. CLASS, M.D. "Scarlatina, Some Further Experiments."
Philadelphia Medical Journal, June 23, 1900.

Class considers that the germ described by him and named the diplococcus scarlatinæ has been conclusively demonstrated by the subsequent

investigations of Gradwohl, Jacques, Page and others, to be the specific causative factor in scarlet fever. He accordingly set to work to try and obtain an antitoxin, and in this paper describes a series of experiments undertaken with this end in view.

A culture obtained from the throat of a person suffering from scarlatina the day before the rash developed, was found to contain the diplococci almost free from contamination by other germs. A toxin was obtained from this by straining through porcelain a culture grown for ten days on bouillon. Inoculations showed the toxin to be very virulent. Class then selected a sow weighing 25 pounds as the animal on which to commence his experiments, using this animal on account of the known susceptibility of swine to scarlet fever. The first injection of 1 cc. of the filtered culture produced a rise of temperature of 2° F. in 24 hours, with general malaise, refusal of food, and great thirst; but in a few days the animal had entirely recovered. A second injection of double the dose produced similar results, and a third likewise, until, after a fourth injection of five times the original dose, there was only $\frac{1}{2}^{\circ}$ of rise in temperature. The animal was then bled, and after the blood had stood for 48 hours, a clear, reddish serum was obtained.

Four experiments were performed to test the efficacy of this as an antitoxin. For each experiment two guinea pigs were used, one animal receiving the germ alone, the other the germ plus the serum. Six of the eight animals received injections of 1 cc. of the original culture and three of these 1 cc. of the serum as well. All of those unprotected by the serum died in from six to fourteen days, while those receiving the antitoxin recovered with but slight reaction. In the other two cases, 0.1 cc. of a culture made from the liver of one of the unprotected animals was used, and only 0.5 cc. of the antitoxin was injected into one of these. Both animals died, the one not receiving the antitoxin in 15 hours, the other in 36 hours. The injections were all intra-abdominal.

Class does not claim to have produced an antitoxin that will do for scarlet fever what diphtheria-antitoxin has done for diphtheria. He admits that his claim to have discovered the specific germ of the disease is not as yet accepted by the profession. It is his intention, however, to make use of some of this product in the first suitable case of scarlatina that presents itself, and the results will be awaited with interest.

Glandular Fever Associated with Erythema Nodosum.

BERTRAM THORNTON, M.R.C.S., L.R.C.P. "A Case of Glandular Fever Associated with Erythema Nodosum." *British Medical Journal*, April 14, 1900.

Thornton reports this case as suggesting a possible explanation of the etiology of glandular fever.

The patient, a healthy girl aged $5\frac{1}{2}$ years, with a family history free from tubercle or rheumatic fever, had had a vague indisposition in the previous year and first came under notice by the accidental discovery of a mitral systolic murmur. Eight months after this she was taken ill with pain and enlargement of the glands in the anterior triangle of the left side of the neck. The temperature rose to 102° F. On the second day the glands on the right side became involved also, and a rise of temperature to 104° followed. On the fourth day, erythema nodosum made its appearance on the legs, and the eruption followed the usual course. The appearance of the erythema nodules was not accompanied by any special constitutional symptoms beyond those already present with the glandular fever. After a fever lasting 26 days, the nodules disappeared and the glands began to subside. Several features of the case suggested rheumatism, notably, early and marked anæmia, and perspiration of a distinctly rheumatic character. Sodium salicylate was given as soon as the erythema appeared, but without apparent benefit.

Thornton suggests that the poison of rheumatism may be one of the causes of the so-called glandular fever.

Kernig's Sign in Infants.

FREDBICK A. PACKARD, M.D. "A Note upon Kernig's Sign in Infants." *Archives of Pediatrics*, April, 1900.

Packard alludes first to the frequency with which infants and young children suffer from meningitis. No less than three per cent. of 2,532 children admitted to the Children's Hospital of Philadelphia, between the years 1895 and 1899, were cases of this disease. He points out that the difficulty of making an absolute diagnosis is often great, and anything that would enable one to come to a positive conclusion would be invaluable. While the presence of this sign is a valuable aid to diagnosis, it must be remembered that its absence does not exclude meningitis.

Three cases are reported, one four months old and two of sixteen months in which there were during life unmistakable symptoms of meningitis but entire absence of Kernig's sign during the whole of the period of observation, although it was looked for every day. At the autopsies, two of the cases showed the presence of tuberculous meningitis and the third of a diffuse leptomeningitis, with thrombosis of a vein over the occipital lobe. Another case is reported to show that hypertonia can exist in infancy. It was that of an infant four months old in whom the whole body could be lifted from the bed by placing the hands under the heels.

Packard disclaims any intention of belittling the value of Kernig's

sign in the diagnosis of meningitis in the adult and older children, but having shown its absence in these three cases in infants, he thinks that the age limit, below which it is not reliable, should be determined.

Chorea.

JOHN LINDSAY STEVEN, M.D. "An Analytical Study of Certain of the Clinical Phenomena Observed in 112 Consecutive Cases of Chorea." *Archives of Pediatrics*, March, 1900.

These cases were collected from the dispensary of the Glasgow Royal Infirmary, the out-patient room of the Royal Hospital for Sick Children, Glasgow, and the wards at the Royal Infirmary. Eighty-seven cases were observed in the out-patient room and 25 in the wards.

Sex.—The out-patients showed about 1 male to 3 females while the ward cases gave a proportion of 1 to 4.

Age.—The greatest number of cases occurred between the ages of five and fifteen. Under five and over fifteen the disease is rare.

Number of attacks.—In 43 per cent. there had been more than one attack; in one case no less than 6; in 4 each, 4 and 5 attacks; while 7 had had 3 attacks.

Duration of the attacks.—The cases treated in the wards were naturally the most severe and of the longest duration. More than half the out-patient cases lasted under two months, and the ward cases less than three months.

The Cause of attack.—With regard to exciting causes, 30 cases gave definite statements and 26 of these might be classed as "emotional." (This is the first point in which the findings of Dr. Steven do not agree with the generally accepted opinion, and we think it can be partially explained by concluding that in the 61 in which no exciting cause was given, none was present. Even then, however, a percentage of 30 is perhaps remarkable.) In the 25 ward cases, no cause could be assigned in 16.

Family History.—In about 50 per cent. a family history of rheumatism, chorea, or some form of nervous disease was obtained.

Association with Rheumatism and other morbid states.—A history of antecedent rheumatism was present in about 50 per cent. of the cases in which this point could be definitely determined. In only one case was the author able to detect subcutaneous nodules, and he gives it as his opinion that they are extremely rare in Glasgow, both in rheumatism and chorea. The other diseases associated with the attacks of chorea were so few in number that they must be looked upon as accidental complications.

Condition of the Heart.—In 31 per cent. of the out-patient cases there

was definite evidence of valvular disease, far the greatest number having a mitral systolic murmur. In the ward cases a much larger proportion was noted, 60 per cent. This is explained by the fact that only the most severe cases of chorea were admitted.

Condition of the Urine.—Four out of 65 in which this point was investigated, had albumin in the urine. There is nothing in the report to show whether this was merely a transient albuminuria or associated with changes in the kidneys. There was no evidence of an excess of waste products, which the author states he would have expected from the excessive muscular movements.

Distribution and Severity of the Movements.—These are classed as general, right-sided and left-sided; and as severe, moderately severe, and slight. Taking all the cases together, it is seen that the majority are moderately severe with general movements. Of cases of hemichorea, the right side was involved slightly more frequently than the left.

In conclusion the author states that although he is able to present no statistics on the subject, he agrees with Osler's statement:—"Psychical disturbance is rarely absent in chorea, fortunately in the majority of cases it is slight in degree."

Reviews and Notices of Books.

THE MEDICAL REVIEW (MEDICAL AND SURGICAL REVIEW OF REVIEWS).

An Indexed and Illustrated Monthly Summary of all that is important to the Practitioner in the Medical Periodicals of the World. Edited by NATHAN E. BOYD, M. D. Volume II, January, December, 1899. London.

This new review, the bound volume of which for the year 1899 makes a most valuable addition to any library, has maintained the high standard set by the first few numbers. The object for which it strives is well expressed in a paragraph printed upon the page opposite to the title page, and which we here reproduce. "By the suppression of all unessential matter, a paper written with any definite object—and such alone is valuable—can generally be compressed into a comparatively brief report, and yet remain a clear and readable account of the subject, so that nothing of importance is lost, and often, in lucidity, much is gained. Merely to mention a few of the leading features of an article serves no useful purpose." That almost all the best medical periodicals now contain a separate department in which the most valuable articles from contemporary journals are synoptised, shows that their readers appreciate the value of these condensed reports. The space allowed for such purposes is, however, necessarily limited and articles cannot receive the same prominence they do in a journal such as the *Medical Review*, devoted entirely to this work.

The articles reviewed in the *Medical Review* have been selected with great care and each number fairly represents the most important recent papers from the medical periodicals of the world. In quite a number of instances the original illustrations are reproduced. Each number contains also a list of new books published during the month, including foreign as well as domestic literature. We have much pleasure in recommending the volume to all who are interested in the progress of medical science.

ANÆSTHETICS : THEIR USES AND ADMINISTRATION. By DUDLEY WILMOT BUXTON, M.D., B.S., Member of the Royal College of Physicians; Ex-President of the Society of Anæsthetists, etc., etc. Third Edition. London : H. K. Lewis, 1900.

This well known book has been for some time out of print and we are glad to see that the author in issuing a third edition has thought wise to practically re-write a great part of it and thus bring it up to date, so

that in this edition we have what could truthfully be said of the two former ones, probably the best manual on anæsthetics in the English language. Over the much debated question of the superiority of either of the two principal anæsthetics, the author has always been most moderate in his views, holding that each has its own proper sphere and refusing to be classed himself as either an out and out etherist or chloroformist. This adds very much to the value of his work which discusses the merits of each in an unprejudiced way.

The book opens with a most readable chapter on the history of anæsthetics from the earliest times. Then follows a chapter on the preparation of the patient and the choice on an anæsthetic, the latter part of the subject being determined by the condition of the patient and the necessities of the operation. For routine work in healthy subjects, "ether, either in succession to nitrous oxide according to Clover's method, or given by itself, is the best and safest anæsthetic for general purposes alike for adults and children, and should be adopted as the routine method of producing unconsciousness before operations." An exception is made for infants, the aged, and pregnant women, as bearing chloroform equally well but not better than ether. Diseases of the respiratory tract and operations about the upper air passages demand chloroform. In pleural effusions all anæsthetics are badly borne. Heart disease is only to be taken into account when there is evidence of loss of compensation, under which condition chloroform is recommended, so also in arterial disease. Under other conditions ether is preferable. In states of collapse, as after railway accidents and conditions of low vitality, ether is much the better on account of its stimulant action. Buxton does not agree with the majority of English anæsthetists who prefer chloroform in abdominal operations, he considers that ether answers equally well and is safer.

In the chapter on Nitrous Oxide a full description is given of the newer method of giving it with oxygen gas for more prolonged operations than is possible with the gas alone. Under ether, the preference is given to a modification of the well known Clover's inhaler devised by the author, as the most convenient means of administration. The advantage of this instrument is that it can be completely disconnected and cleaned, the parts fitting together by a series of bayonet fastenings. The article on the administration and dangers, etc., of chloroform is very full and due weight is given to the importance of recognizing that chloroform is never free from danger. Buxton does not accept the findings of the Hyderabad Commission, as determining that the only danger to be apprehended in chloroform anæsthesia is from failure of the respiration, but believes in primary heart syncope, as indeed do all practical anæsthetists.

The work contains chapters also on the less commonly used anæst-

thetics, anæsthetic mixtures, anæsthetics in special surgery, in obstetric practice, the accidents of anæsthesia, local anæsthesia, and the medico-legal aspects of the administration. It is fully illustrated with wood cuts of the various forms of inhalers, gags, and other accessories and will be found especially valuable to any young practitioner who is called upon to select and administer anæsthetics to a large number of people.

G. G. C.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX.

A Work of Reference for Medical Practitioners. By Thirty-nine Contributors. 1900, Eighteenth Year. New York, E. B. Treat & Co. Price, \$3.00.

This volume, as in former years, contains several valuable original contributions, among which may be mentioned "Malarial Fever," by Major Ronald Ross, giving the facts so far as known concerning the mosquito origin of malaria; "Mycetoma," by Lieut.-Col. W. Keith Hatch, of Bombay, with a report of 76 cases admitted to one of the Bombay hospitals within the last twenty years. This article is illustrated by seven valuable plates. "Sinusitis," by P. Watson Williams, is a well written article on the differential diagnosis of inflammations of the accessory cavities of the nose; it is illustrated by three plates showing the position of the different cavities. Fifty pages are allotted to new methods of medical and surgical treatment in stomach diseases, by Boardman Reed, of Philadelphia. Keith W. Monsarrat writes on the pathology of "Cancer," describing his own experiments and observations on the supposed parasite of the disease.

The volume contains a larger amount of original matter than in any previous issue and the usual "Notes on Legal Decisions, Sanitary Science, Books of the Year," etc., of previous volumes.

INJURIES TO THE EYE IN THEIR MEDICO-LEGAL ASPECT. By S.

BAUDRY, M.D., Professor in the Faculty of Medicine, University of Lille, France, etc. Translated from the original by ALFRED JAMES OSTHEIMER, JR., M.D., of Philadelphia, Pa. Revised and edited by CHARLES A. OLIVER, A.M., M.D. Attending Surgeon to the Wills Eye Hospital, etc. With an adaptation of the Medico-Legal Chapter to the Courts of the United States of America, by CHARLES SINKLER, Esq., Member of the Philadelphia Bar. 5½ x 7½ inches. Pages, x—161. Extra Cloth, \$1.00, net. The F. A. Davis Co., Philadelphia, Pa., 1900.

Professor Baudry's book has attained a high reputation abroad, which we feel sure will be extended to the translation by this continent. It deals individually with the medico-legal questions arising in connection

with injuries of the eyelid, conjunctiva, cornea, lens, etc., and, finally, with trauma involving the entire eyeball. There is a chapter on simulation and exaggeration of visual defects.

Professor Baudry gives a number of interesting personal cases, where compensation was claimed for conditions not due to injury and ante-dating it; and his medico-legal reports might well serve as models of style and matter. The bibliography, especially on simulations, is excellent. If we have a criticism to make it is that while he deals with many intricate medico-legal problems in a masterly manner and teaches us how to detect and baffle the most subtle forms of guile, he is quite silent as to the basis on which genuine and undisputed lesions or visual defects should be compensated, even when of the simplest nature. In this respect the German authors on the subject are more satisfactory.

The translation is remarkably well done, but the chapter by Chas. Sinkler, Esq., of the Philadelphia Bar, consists of irrelevant twaddle about expert testimony, which hardly repays perusal. W. J.

A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE. By ROBERT W. TAYLOR, A.M., M.D., Clinical Professor Venereal Diseases at the College of Physicians and Surgeons (Columbia University), New York, etc., etc. Second Edition. Thoroughly Revised. With 91 illustrations and 13 plates in colour and monochrome. Lea Brothers & Co., New York and Philadelphia. Price, \$3.00.

We are glad to see another edition of this popular work. Too many of this class of books treat the subject of sexual disorders in a slipshod way without any attempt to do more than enumerate the symptoms for which they give general directions as to treatment. Dr. Taylor describes first the anatomy and physiology of the whole sexual apparatus in a scientific and philosophical manner and throughout the whole work as much attention, as the knowledge of the subject will allow, is paid to pathology.

After devoting 75 pages, well illustrated by numerous drawings and plates, to the anatomy and physiology, the author discusses, in ten chapters, psychical, symptomatic, atonic and organic impotence in the male. The next five chapters treat of sterility in the male, a condition which the author thinks is much more common than is generally supposed and to which too little attention is given in most text-books.

The chapters on chronic inflammation of the various portions of the urethra and of the prostate gland are very thoroughly treated and the same may be said of varicocele and of diseases of the seminal vesicles.

Sexual disorders of the female necessarily do not receive the same attention in a work of this kind that they do in some of the larger works on

gynaecology, indeed, the author refers the reader to the text-books of women's diseases for further information on some parts of the subject. The new growths and hypertrophies of the vulva, which may be the cause of sterility, are fully described and the appropriate treatment indicated. A chapter, illustrated by half a dozen cuts, is devoted to the description of two cases of a peculiar form of new growth which Dr. Taylor is the first to describe.

We can recommend the book to all who have to do with the distressing class of cases with which this work treats, and what general practitioner does not occasionally meet with them ?

LETTER, WORD AND MIND BLINDNESS. By JAMES HINSHELWOOD, M.A., M.D., F.F.P.S., Glasgow, Surgeon to the Glasgow Eye Infirmary. London : H. K. Lewis, 136 Gower street, W.C., 1900.

This interesting little work deals with special forms of visual aphasia. The first chapter is devoted to visual memory ; the second to letter word, and mind blindness ; the third to a case of partial mind blindness with dyslexia ; the fourth to word without letter blindness and the fifth to letter without word blindness. The author has been fortunate in having under observation a series of very pure cases of visual aphasia, that is, unaccompanied by derangements of the other special centres. He has studied them very thoroughly, and although he has no post-mortem evidence to prove the correctness of his deductions, few we believe will doubt them.

Although the subject is one of difficulty, still the clearness with which the author's views are expressed, makes the volume very interesting and pleasant reading.

J. S.

LEA'S SERIES OF POCKET TEXT-BOOKS—NERVOUS AND MENTAL DISEASES. A Manual for Practitioners and Students. By CHARLES S. POTTS, M.D., Instructor in Nervous Diseases, University of Pennsylvania, Assistant Neurologist to the University Hospital, Philadelphia. Series edited by BERN B. GALLAUDET, M.D., Instructor of Anatomy and Instructor in Surgery, Columbia University, New York. Illustrated with eighty-eight engravings. Philadelphia and New York : Lea Brothers and Co., 1900. Price, \$1.75.

Lea's series of pocket text-books fill a very important place in medical literature. They are not only adapted to meet the needs of the medical student, but also meet in many ways the often pressing needs of the busy practitioner.

The volume on the Nervous System is no exception to this statement.

The work is well written, well printed and well illustrated. The author evidently understands his subject, and has given us a trustworthy guide to both nervous and mental diseases.

J. S.

LES ALIENES DEVANT LA LOI. Etude Médico-légale par le DR. GEO. VILLENEUVE, Professeur adjoint de médecine légale et de médecine mentale à l'Université Laval de Montréal; Surintendant Médical de l'Asile d'Aliénés de St. Jean de Dieu, Longue Pointe, etc.

The author has republished in book form a series of articles published during the last few years in *L'Union Médicale*. It forms a comprehensive survey of the legal bearings of insanity from every point of view, and is divided into:—(1) criminal relations, (2) commitment to asylums, (3) civil relations of the insane, with a summary of the existing laws on the subject and the various forms and certificates made use of. The special legal points of importance and features of individual forms of mental disease are also dealt with.

Besides thus forming a practical guide to many questions with which any medical man may be confronted, it contains a number of interesting personal observations and illustrative cases. The book is a most useful one and we hope it may be translated into English, as we have at present no work in our own language applicable to the conditions existing in this province.

W. J.

SAUNDERS' QUESTION-COMPENDS—ESSENTIALS OF DIAGNOSIS. By SOLOMON SOLIS-COHEN, M.D., Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic, etc., etc., and AUGUSTUS A. ESHNER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc. Illustrated. Second Edition. Revised and Enlarged. Philadelphia, W. B. Saunders, 1900. Canadian Agents, J. A. Carveth and Co., Toronto. Price, \$1.00.

The second edition of this number of the series of Saunders' Question-Compends contains considerable additional matter, and is brought up to date in regard to the more recent methods of exact diagnosis introduced since the appearance of the first edition, although there is no description of how to perform these methods of clinical diagnosis. After a chapter on the principles and methods of diagnosis in general, the various diseases are taken up seriatim, and a short description given first of the salient features that serve to distinguish each, and this is followed by a paragraph on the differential diagnosis from each of the diseases which might be confounded with the one in question. The book will be found of service to the practitioner as well as the student, depicting as it does in a few words the symptoms or groups of symptoms upon which reliance is to be placed in distinguishing between two somewhat similar affections.

THE TRANSACTIONS OF THE SOCIETY OF ANÆSTHETISTS. Volume II. London, Published for the Society by the Medical Publishing Company, Limited, 1899.

This volume contains the papers and discussions for the year 1898-99,

some of which are of very great interest. We have already reviewed in the retrospect department of this JOURNAL the discussion on "The Choice of an Anæsthetic." Besides this, we have to note a paper by Professor William Ramsay on "Pure Anæsthetics," which deals with the impurities of chloroform and their effect upon anæsthesia, and several papers on the use of nitrous oxide gas, with oxygen, in an open inhaler, and with an apparatus which admits of the anæsthesia being kept up for prolonged operations.

TEXT-BOOK OF DISEASES OF WOMEN. By C. B. PENROSE, M.D., Ph.D., Professor of Gynæcology in the University of Pennsylvania; Surgeon to the Gynæcological Hospital, Philadelphia, etc. Third Edition. Illustrated. W. B. Saunders, Philadelphia, 1900. Canadian Agents, J. A. Carveth & Co., Toronto. Price, \$3.75.

The publication of three editions of this work is the best proof of its excellence and usefulness. Some new matter has been added to the second edition, and all that the reviewer can say is that the work has been brought up to date and is in no way behind the two preceding editions.

F. L.

A MANUAL OF THE PRACTICE OF MEDICINE PREPARED ESPECIALLY FOR STUDENTS. By A. A. STEVENS, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania, etc., etc. Fifth Edition, Revised and Enlarged. Illustrated. Philadelphia, W. B. Saunders, 1898. Canadian agents, J. A. Carveth & Co., Toronto. Price, \$2.00.

The fifth edition of this small "manual" of the practice of medicine would tend to show that such works are appreciated by the profession. The impossibility of condensing what a practicing physician requires to know about medicine into 500 small octavo pages does not seem to us to augur well for the patients, who will trust themselves to the embryo doctor deriving his knowledge of medicine from this book. It no doubt enables the student to cram for examinations in the shortest possible time and this in all probability accounts for its popularity. Though the book may be an excellent one of its kind, this class of short cuts to knowledge is not to be recommended.

THE

Montreal Medical Journal.

A Monthly Record of the Progress of Medical and Surgical Science.

EDITED BY

THOS. G. RODDICK,
A. D. BLACKADER,
GEO. E. ARMSTRONG,
WILLIAM GARDNER,
F. G. FINLEY,

JAMES STEWART,
J. GEORGE ADAMI,
G. GORDON CAMPBELL,
FRANK BULLER,
H. A. LAFLEUR,

WITH THE COLLABORATION OF

WYATT JOHNSTON.
C. F. MARTIN,
J. M. ELDER,
D. J. EVANS,
A. E. GARROW,

T. J. W. BURGESS,
J. W. STIRLING,
F. A. L. LOCKHART,
W. F. HAMILTON,
E. J. SEMPLE

H. S. BIRKETT,
J. C. WEBSTER,
KENNETH CAMERON,
C. W. WILSON.
A. G. NICHOLLS.

VOL. XXIX

AUGUST, 1900.

No. 8

THE ATTENDANCE AT MEDICAL ASSOCIATIONS.

The attendance of medical men at medical associations is too small. This is generally conceded. Why is it? Some general practitioners when asked this question, reply that the meetings are too technical; that the papers for a great part are read by specialists and hospital men upon subjects that have to the general practitioner very little interest; that rare diseases are discussed and cases reported that are unique, curious and for which very little can be done anyway.

That there is perhaps some truth in these reasons for infrequent attendance *may be conceded*. But if the general practitioner would come forward with papers on subjects in which he is interested, if he would introduce discussions on diseases that cause him anxiety and concerning which he would like to compare notes with his confrères, if he would report the rare and curious cases that he has seen and which would be of interest to everyone; then there would be fewer so-styled ultra scientific papers. That the fault lies partly with the general practitioner *must be conceded*.

There is no man in the community who needs an occasional holiday

more than the busy physician, and no man more thoroughly deserves it or can better enjoy it. No physician can attend a gathering of his confrères, for the consideration of professional subjects and interests, without getting good and doing good.

Of course, the duties of the physician are sacred and imperative and there are times when he cannot, in justice to those who depend upon him in sickness, leave his practice even for a day; but we feel sure that more might do so than do.

The attendance at the Canadian Medical Association of only ten per cent. or even less of the profession of the Dominion, shows, we fear, lack of interest more than devotion to duty, and we would urge that the coming meeting in Ottawa be largely attended. The programme is most attractive, the meeting gives promise of being one of the most interesting, scientifically, in the history of the association, and it is the opportunity we have of meeting the members of our profession from the different provinces.

CANADIAN MEDICAL ASSOCIATION.

OTTAWA MEETING.

The outlook is bright for a delightful meeting of the Canadian Medical Association at the capital city this year. A most suitable date, September 12th to 14th, has been chosen, and the committee has been singularly fortunate in its selection of the readers of the addresses. Mr. Owen, of London, England, is well known by reputation to all Canadians and personally to not a few, and will be enthusiastically welcomed, while Dr. Shattuck is no stranger to us, and worthily represents our brethren from across the line.

The profession of Ottawa are noted for their hospitality and visiting members may expect to be royally entertained, as we learn that many and complete are the preparations now in hand to make them remember the 1900 meeting.

The local committee are desirous of obtaining the names in advance of all those who propose to be present in order to facilitate their arrangements. Intending visitors should notify Dr. R. W. Powell, of Ottawa.

The following is a provisional list of papers. Any one who has not already sent in the title of his paper should do so at once to the Secretary, Dr. F. N. G. Starr, Biological Department, Queen's Park, Toronto.

(1) Address in Surgery—Edmund Owen, M.B., F.R.S.C., London, England.

(2) Address in Medicine—F. Shattuck, M.D., Harvard University.

- (3) Address in Gynecology—William Gardner, M.D., Montreal.
- (4) Gall-Stone Cases—Arpad Gerster, New York.
- (5) Title to be announced—N. Senn, Chicago.
- (6) The Recognition and Management of *Tabes Dorsalis*—Allan McLane Hamilton, New York.
- (7) A Case of Endothelioma of the Omentum, Operation, etc., and Meningocele, Operation, etc.—W. H. Klock, Ottawa.
- (8) The proposed Ontario Bill for the Treatment of Inebriates—A. M. Roseburgh, Toronto.
- (9) The Modern Treatment of Retroversion and Prolapse of the Uterus—A. Laphorn Smith, Montreal.
- (10) Treatment in Typhoid Fever—W. B. Thistle, Toronto.
- (11) Gastric Hæmorrhage—G. E. Armstrong, Montreal.
- (12) Some Cases in Stomach Surgery: Gastrotomies, two cases; Gastro-enterostomies, two cases; Pylorotomy—A. E. Garrow, Montreal.
- (13) Gangrene of the Leg following Typhoid Fever—H. H. Chown, Winnipeg.
- (14) Title to be announced—N. A. Powell, Toronto.
- (15) Notes on the Therapeutic Value of Hot Air—C. F. Martin and B. D. Gillies, Montreal.
- (16) Title to be announced—J. Clarence Webster, Chicago.
- (17) Title to be announced—H. H. Beemer, Mimico.
- (18) Notes on Atropine—R. D. Rudolf, Toronto.
- (19) Gasoline as a Surgical Detergent—B. L. Riordan, Toronto.
- (20) The Successful Treatment of Two Important Cases of Diseases of the Eyes by the combined methods of mercury and iodide of potassium internally and pilocarpine hypodermically—G. H. Burnham, Toronto.
- (21) Our Race and Consumption—Sir James Grant, Ottawa.
- (22) The Physician's Vaster Empire—John Hunter, Toronto.
- (23) Some Experiences in the Treatment of Hernias—F. J. Shepherd, Montreal.
- (24) Notes of a Case of Tuberculous Disease of the Tubes with Acute Peritoneal Infection—H. A. Bruce, Toronto.
- (25) The Summer Health Resorts of the River and Gulf of St. Lawrence—E. H. Adams, Toronto.
- (26) Empyema, with a study of Thirty Cases from the Clinical and Bacteriological Standpoints—W. F. Hamilton, Montreal.
- (27) Physical Training, Its Range and Usefulness in Therapeutics—B. E. McKenzie, Toronto.
- (28) A Case of Traumatic Neurasthenia—B. Campbell Myers, Toronto.

(29) Adenoids in Private Practice, A Report of 100 Cases—P. G. Goldsmith, Belleville.

(30) Recent Pathological Studies of the Blood—L. H. Warner, Brooklyn.

(31) A Case of Syphilitic Gummata of the Spinal Cord Successfully Treated by Enormous Doses of Iodide of Potassium—F. W. Campbell, Montreal.

(32) Dilatation and Prolapse of the Stomach—A. McPhedran, Toronto.

(33) Tendon Transplanting in Paralytic Deformities—Clarence L. Starr, Toronto.

(34) Some Marked Symptoms attending Hypertrophy of the Lingual Tonsil—H. D. Hamilton, Montreal.

A meeting of the graduates of McGill University, residing in the Maritime Provinces, was held in St. John, N.B., July 18th, 1900, when "The Maritime Graduates Society of McGill University" was formed in lieu of the Provincial societies now existing, and the following officers elected:—

President, Dr. W. H. Hattie, Halifax, N.S.; 1st Vice-President, Dr. J. H. Scammell, St. John, N.B.; 2nd Vice-President, Dr. H. D. Johnson, Charlottetown, P.E.I.; 3rd Vice-President, Dr. Hugh Ross, Stellarton, N.S.; Secretary-Treasurer, Dr. G. G. Corbet, Musquash, N.B.

Executive Committee—Dr. J. G. McDougall, Amherst, N.S.; Rev. Robert Laing, Halifax, N.S.; Dr. St. C. J. Gallant, Charlottetown, P.E.I.; Dr. Alex. McNeil, Kensington, P.E.I.

Next meeting will take place the evening before the Maritime Medical Society meets in Halifax, N.S., 1901.

NEW BOOKS, ETC., RECEIVED AND NOTED.

W. B. Saunders, Philadelphia.

Saunders' Medical Hand Atlases. Atlas and Epitome of Operative Surgery. By Dr. Otto Zuckerkandl. Authorized Translation from the German. Edited by J. Chalmers DaCosta, M.D. 1899.

The Surgical Treatment of Tumours. By N. Senn, M.D., Ph.D., LL.D. Second Edition. 1900.

The Treatment of Fractures. By Charles Locke Scudder, M.D., assisted by Frederick J. Cotton, M.D. 1900.

A Handbook for Nurses. By J. K. Watson, M.D., Edin. American Edition under the supervision of A. A. Stevens, A.M., M.D. 1900.

Saunders' Question Compends. Essentials of Diagnosis. By Solomon Solis-Cohen, M.D., and Augustus A. Eshner, M.D. Second Edition. 1900.

Saunders' Medical Hand-Atlases : Atlas and Epitome of Special Pathologic Histology. By Dozent Dr. Hermann, Durck. Authorized Translation from the German, edited by Ludwig Hectoen, M.D. 1900.

Fractures. By Carl Beck, M.D. 1900.

Lea Brothers & Co., New York and Philadelphia.

A Practical Treatise on Sexual Disorders of the Male and Female. By Robert W. Taylor, A.M., M.D. Second Edition. 1900.

A Text-Book of the Medical Treatment of Diseases and Symptoms. By Nestor Tirard, M.D., Lond., F.R.C.P. Adapted to the United States Pharmacopœia by E. Quinn Thornton, M.D. 1900.

Lea's Series of Pocket Text-Books. Chemistry and Physics. Walton Martin, Ph.B., M.D., and William H. Rockwell, Jr., M.D. 1900.

Progressive Medicine. Vol. II. June, 1900.

A Text-Book of Practical Therapeutics. By Hobart Amory Hare, M.D., B.Sc. 1900.

A Dictionary of Medicine and the Allied Sciences. By Alexander Duane, M.D. 1900.

A Manual of Operative Surgery. By Lewis A. Stimson, B.A., M.D. Fourth Edition. 1900.

Little, Brown & Company, Boston.

Surgical Anæsthesia. Addresses and other Papers. By Henry Jacob Bigelow, A.M., M.D., LL.D. 1900.

Orthopedic Surgery and other Medical Papers. By Henry Jacob Bigelow, A.M., M.D., LL.D. 1900.

The Mechanism of Dislocations and Fracture of the Hip. Litholopaxy or Rapid Lithotrity with Evacuation. By Henry Jacob Bigelow, A.M., M.D., LL.D. 1900.

A Memoir of Henry Jacob Bigelow, A.M., M.D., LL.D. 1900.

William Green & Sons, Edinburgh.

Encyclopædia Medica. Under the General Editorship of Chalmers Watson, M.B., M.R.C.P.E. Volume I. 1899.

Philadelphia Medical Publishing Company.

Suggestions to Medical Writers. By George M. Gould, A.M., M.D. 1900.

J. A. Curveth & Co., Toronto.

Post-Mortem Examinations. Methods and Technique. By John Caven, B.A., M.D. 1900.

H. K. Lewis, London.

Medical Electricity: A Practical Hand-Book for Students and Practitioners. By H. Lewis Jones, M.A., M.D. Third Edition. 1900.

Simpson, Marshall, Hamilton, Kent & Co., Limited, London.

Braithwaite's Retrospect of Medicine. Vol. CXXI. 1900.

University of Pennsylvania, Purbe A. Hearst Foundation, Philadelphia.

Contributions from the William Pepper Laboratory of Clinical Medicine. 1900.

Mutual Life Insurance Company of New York.

Report on the Mortality Records of the Mutual Life Insurance Company of New York for fifty-six years, from 1843 to 1898. By Elias J. Marsh, M.D., and Granville M. White, M.D., Medical Directors. 1900.

Reprints, etc.

Twenty-two Reports of the Thirteenth International Congress of Medicine, Paris. W2 to 9. 1900.

Transactions of the Rhode Island Medical Society. Vol. VI., Part 1. 1899.

Report for 1898 on the Progress of Pharmacy in its Relation to the Future Revision of the British Pharmacopœia of 1898.

Remarks on Extra-Uterine Pregnancy. By Chas. P. Noble, M.D. American Gynæcological and Obstetrical Journal. March, 1900.

Remarks on Nephrectomy with a plea for the more Certain and Earlier Diagnosis of Conditions requiring it. By Charles P. Noble, M.D. Pennsylvania Medical Journal. August, 1899.

A New Method of Diagnosis of Tuberculosis of the Kidney. By Chas. P. Noble, M.D., and W. Wayne Babcock, M.D. American Gynæcological and Obstetrical Journal. December, 1899.

The Duty of State and Municipality in the Care of Pulmonary Tuberculosis Among the Poor. By Edward O. Otis, M.D. Albany Medical Annals. April, 1900.

Conditions of the Throat and Larynx simulating and predisposing to Tuberculosis. By Lennox Browne, F.R.C.S.E.

Immunity as against Heredity in Tuberculosis. By Lawrence F. Flick, M.D. The Journal of Tuberculosis. October, 1899.

The Registration of Tuberculosis. By Lawrence F. Flick, M.D. The Philadelphia Medical Journal. June 2, 1900.

The Therapeutics of Tuberculosis. By Lawrence F. Flick, M.D. The Therapeutic Gazette. Jan. 15, 1900.

Immunity the Fundamental Principle underlying all Treatment of Tuberculosis. By Lawrence F. Flick, M.D. The Journal of the American Medical Association. Oct. 1, 1898.

The Contagiousness of Phthisis. By Lawrence F. Flick, M.D. Transactions of the Medical Society of the State of Pennsylvania. June, 1888.

Ten Years' Experience with Alexander's Operation. By A. Laphorn Smith, B.A., M.D. New York Lancet. January, 1900.

Some Observations on Pryors' Method of Removing the Fibroid Uterus. By A. Laphorn Smith, B.A., M.D. The American Journal of Obstetrics. June, 1900.

Acute Inversion of the Uterus. By A. Laphorn Smith, B.A., M.D. American Gynæcological and Obstetrical Journal. January, 1900.

Hæmorrhage and Circulatory Disturbances in Complicated Fracture. By Thos. H. Manley, M.D. The Medical Standard. May, 1900.

The Management of Large Congenital Exolmos—Infantile. By Thos. Manley, M.D.

On the Radical or Tentative Treatment of Piles. By Thos. H. Manley, M.D. Medical Brief. April, 1900.

On the Therapy of Feminine Hernia in the Adult. By Thomas H. Manley, M.D. The Therapeutic Gazette. Feb. 15, 1900.

Cholangiostomie—Two Cases Recovering. By B. Merrill Rickets, Ph.B., M.D. Medical Review of Reviews. December, 1899.

Rapid Treatment of Varicose Ulcers of the Leg. By W. D. H. Brown, M.D. American Tri-State Medical Journal and Practitioner. June 19, 1899.