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A JOURNAL PUBLISHED MONTHLY IN THE INTERESTS OF MEDICINE AND SURGERY

VOL XXIII. TORONTO, JANUARY, 1908 NO. 1.

## Original Contributions.

**IDEALS IN MEDICINE.\*** 

BY J. F. W. ROSS, M.D., TORONTO.

Fellows of the Academy of Medicine, Ladics and Gentlemen:

Allow me to thank you for the honor conferred upon me when elected as President of this Academy of Medicine of Toronto. It is my intention to hand over the tiller at the end of my term, feeling that the new craft has been safely launched in a calm sea, and that it is so built that it will be well able to weather any storm. As the first captain on the ship I have felt it incumbent on me to make a few remarks regarding the rules of the sea, and the dangers to be avoided in navigation. Any shortcomings in this address must be attributed to two causes—inability to do better, and hasty preparation. We have all listened to the regulation presidential address, and we have all wondered why they are delivered with such regularity and with so little benefit; however, I am forced to inflict you as a matter of custom.

During our professional career there are occasions that stand out in bold relief—occasions such as this, when one who is passing into the autumn of life addresses his fellows in his beloved profession from the pedestal upon which they have set him. It is quite probable that the sentiments expressed may not find a sympathetic response in the breasts of all, for it is neither possible nor desirable that we should all think alike, but with one sentiment I feel satisfied everyone will agree, the necessity for that spirit of unity, peace and concord in our Academy of Medicine which is so essential to the dignity and usefulness of our profession.

We have here a large city that has grown to its present proportions with astonishing rapidity. Our educational institutions, we

<sup>\*</sup> Address delivered at the opening meeting of the Academy of Medicine, Toronto, December, 1907.

hope, have kept pace with this amazing growth, and among them, as the chief ornament, our *alma mater*, of which we are justly proud.

After many weary years of isolated divorce the medical faculty was reunited in the bonds of matrimony, and again became one of the consorts, and not the least, of our many husbanded mother. After the consummation of this happy event a still greater and still stronger union took place when the two great educational families were merged in one. The time seemed ripe for a union, not only of the two great teaching families, but of the little medical experience meetings-our medical societies, into a much greater, more efficient, more active and a better organized body, namely, an Academy of Medicine. Any little effort I may have put forth to gain this desired end has been due to the inspiration of that ideal teacher, father and friend, the late Professor James E. Graham, who labored so arduously among the younger generation for the promotion of a better scientific spirit-a something to elevate them from the ordinary rut of humdrum routine practice. He early realized that the university but builds the foundation, firm and substantial as a necessity, on which must be reared the superstructure, and that both must enter into the completed building and the structure be judged as a whole. It is the finished product that we require; beyond the university walls much must be done to fit out a medical man as one of our ideals. He must leave the halls of learning a student still; he must leave the class-room for the council chamber, and our council chamber in this fair city, we hope, will be our Academy of Medicine.

I propose to consider my subject under three heads—ideals in education, ideals in practice, and ideals in the aims and conduct of our Academy.

## IDEALS IN EDUCATION.

It may be granted that the highest purpose in the education of a medical man is to fit him to discharge his future dutics. Let us consider, then, the means provided to furnish him with this equipment. Two prominent educational systems at once present themselves to our notice, the *English* and the *German*. In a recent valuable paper Sir Felix Semon draws an interesting parallel between the two systems, from which, I think, some lessons may be learned. Permit me to give you a short synopsis of their main features as described by him.

In England the course of actual study for the medical profession occupies five years, three of which are consumed in preliminary and intermediate work, only two being allowed for clinical instruction. In Germany, out of six years allotted to the course, two and a half are devoted to preliminary and intermediate instruction, and three and a half to clinical work. A sixth, or additional year for clinical instruction was added in 1904.

In Britain the medical institutions receive no State aid, and frequently the authorities are hampered in their work and in the introduction of much-desired improvements owing to lack of funds. In Germany the teaching institutions are wholly supported by the State, and the question of money does not stand in the way of the promotion of the progress of medical crience.

After a very acrimonious discussion in the days gone by in connection with the question of State-aided medical education, and after the restoration of the Medical Faculty of Toronto University, the University Commission, viewing this matter from all sides, finally came to the conclusion that the question involved not merely the necessary advancement in ordinary education, but also the prosecution of research work, in the results of which the country has so deep an interest, and from which it may reap so great a benefit. In the promotion of both the State has obligations. The extent of these obligations it may be difficult now to determine. We have, therefore, in this country accepted the wisdom of the German in preference to the lack of foresight of the British.

In the appointment of teachers the two systems present wide contrasts. With us the baneful system of "inbreeding" still prevails, and when a physician once obtains a position on the teaching staff, his promotion follows as a matter of course. This comfortable certainty does not tend to stimulate him to do further original work. To the German professor, promotion only comes with achievement, and the necessity for constant and patient research always exists.

A comparison of the emoluments received by the teachers under the two systems does not redound to the credit of the English system. With us, unfortunately, the salaries of those teaching medicine, except in a few of the primary branches, have been based upon the idea that they are able to carry on a private practice, and the fact has been lost sight of that in order to do so successfully their time must be their own. The teachers are thus hampered in their work, as they are endeavoring to serve two masters. On the other hand, the public should not be deprived of the benefits to be derived from the knowledge and skill acquired by years of faithful toil as teachers. The ideal condition is a difficult one to arrive at.

German universities, unlike ours, are State institutions, regulated and supported by the State and conducted on a uniform and officially prescribed plan. As a consequence of this uniformity a student is not confined to the sphere of one university. He may change it at the end-of each term if he desires, and he frequently attends three, and even four, during the course of his studies. He is less worried by examinations than his English cousin, though the three he has to pass are conducted with a thoroughness scarcely equalled in the English examinations.

Owing to the greater number of teaching institutions in Britain and the distribution of the students over them, practical bedside teaching is greatly superior to that afforded by the German system, the crowded German clinics not permitting that close personal contact with experienced teachers enjoyed by the English student. I understand, however, that this overcrowding has been of late years overcome to some extent by the utilization of extra-mural hospitals for the purpose of clinical teaching.

From the foregoing comparisons it must be admitted that of the two educational systems the German more closely approaches the ideal. Modern clinical methods are new in medicine, and in this field of study the Germans lead the world. Complaints have been heard here and elsewhere that candidates for the positions of house physicians, house surgeons, medical and surgical assistants are often found deficient in the knowledge of elementary laboratory work. Why? Because too much of their time has been given to preliminary studies and too little to practical work.

A training is useless unless adapted to the real needs of the person trained. The Germans have laid this truth to heart, for their regulations expressly provide that the examinations in physics and chemistry " have to keep particularly in view the requirements of the future physician." While the Germans have been making a march in advance we have been retrograding, owing to our acquiescence with the demands of the teachers of purely scientific subjects. Teachers of physiology and chemistry are intent on turning out physiologists and chemists, and not on turning out well-trained physicians to heal the sick. Students-embryo physicians-have much else to learn to fit them for their future vocations. If men desire to become chemists and physiologists and take the degree of doctor of medicine as a matter of form, well and good, but our curriculums should not be framed to suit the few and injure the many. Subjects of the greatest importance to the future practitioner have to suffer in proportion to the time devoted to purely scientific subjects.

Out of five years the English student has three removed entirely from the hospital wards. Surely the tables should be turned, and two years given to the primary branches and three to the final studies. The early work of the preliminary studies is but frugal fare, while the real banquet is composed of clinical activities. Each clinical fact obtained is as gold in the storehouse of knowledge of the young doctor. It is true that scientific and clinical training are inseparable. They must dwell together, but while the scientific training is more important to the scientist, clinical training is more important to the practitioner, and we are developing and training future practitioners.

Another place in which scientific and clinical training must go

hand-in-hand is the hospital, and a hospital is sadly, lacking in equipment unless properly fitted with first-class laboratories. I would go further, and say that every hospital should be provided with a practical physiologist, doing research work on the very threshold of disease. Not only should we have pathological laboratorics, but we should have physiological laboratories connected with every hospital. In this way we should be able to round up the studies of the students by giving them a campus on which the clinicians and scientists may struggle for the mastery over disease. As these requirements are expensive adjuncts, teaching hospitals, as a link in the great chain of State education, should be liberally endowed by the government.

In educational matters we must be content to build slowly and to see changes introduced with caution. Each teacher should endeavor to realize the limitations of his power. I think, however, that improvement might be made in our system in three particulars without the fear of anything but desirable results; namely, a rearrangement of the medical curriculum by which more time could be devoted to clinical work; a reorganization of our method of appointing and promoting teachers, and the requirement of a better acquaintance with the French and German languages. In support of my last suggestion I cannot do better than to quote what Sir Felix Semon says in this connection:

"When medicine is becoming more international every day, when the reading of important new papers in the original language is most desirable to many of us, when we have international medical congresses, when we come into personal contact with so many foreign *confreres*, and when not rarely patients belonging to other nationalities, and not speaking a word of English, seek the aid of many of us—a conversational knowledge at any rate, and one enabling us to read French and German medical papers in the original, is becoming every day more a requirement of the cultured medical man."

If modern languages and classics cannot be mastered by the present school system, would it not be advisable to admit to the study of medicine only those who have obtained an Arts' degree?

#### IDEALS IN PRACTICE.

"The practice of medicine is an art not a trade, a calling not a business," has been said by one well-known to all of us. Often the best part of a physician's work lies in the influence which he exercises in the community. When the young man leaves his medical school and enters upon the practice of medicine his cducation is not finished. It is to be a lifelong study, and the education of the moral man roust keep pace with the intellectual. Whether he is a success or a failure will depend upon

himself and the honest labor of head and heart which h. lays upon the altar of his profession. It is said that the struggle for the ideal is the struggle for the impossible. This may be true, but we are the better for the struggle, and the world is the better for our efforts, even though the end is never gained. "To travel hopefully is better than to arrive, and the true success is in the labor."

Many believe they are doing research work because they are on speaking terms with the genuine workers and those doing original work. There is no place in our ranks for such as these, none for the dilettante, none for the social lion or for the strategist, who uses the church to further his own ends in his struggle for a practice. The young physician in looking back among his ideals finds some few standing out in the forefront and becomes better acquainted with them than with many thers. Among these we may mention Harvey, whose discovery of the circulation of the blood originated the study of physiology, medicine and comparative anatomy; Jenner, whose wonderful discovery was destined to save so many lives and banish smallpox from our midst; Simpson, whose ardent advocacy placed the use of anesthetics on a firm footing and insured to humanity the alleviation of pain; and Lister, whose

> "Faultless patience, his unyielding will, Beautiful gentleness and splendid skill,"

introduced the dawn of a new era of Listerism with all its beneficent results.

We all aim to achieve legitimate success, but, unfortunately, of those who enter the race but few attain the goal. Success can only be attained by hard work. Osler defines success as getting what you want and being satisfied with it. It is an interesting study to sit down and endeavor to fathom the depths of the minds of the great men who have made a success of their work in the fields of medicine and surgery. Parkes says of Harvey: "When anyone examines into this discovery of Harvey's and gradually recognizes its extraordinary importance, he cannot-but be seized with an urgent wish to know how the mind which solved so great a problem was constituted." There was no accident about it; it was worked out and thought out point after point, and it had not been anticipated.

But often when success has been attained, due recognition has been withheld and the worker may become discouraged. When Marshall Hall endeavored to establish his method for producing artificial respiration, the Humane Society looked coldly upon the novel plan and ignored it for a long time. However, a life-saving institution, having so much inherent value in it, forced itself upon the public, and to-day it is universally adopted, and has been the

means of saving many lives, and asphyxia from any cause has been robbed of many of its terrors.

But we admire the humbly great, such as Jenner and Lister. Humble in his tastes, Jenner resented the glare of the limelight; he sought the seclusion of the valley and not the conspicuousness of the mountain-top. He longed for neither fame nor fortune, and had quite enough to satisfy his modest tastes. To him fame was but a gilded butt forever pierced with the arrows of malignancy.

In Vienna, during the first five years of the nineteenth century, 14,600 persons died from smallpox, while in 1804, three years after the introduction of vaccination, there were but two deaths. It was here that Jenner received his first great recognition. Like other prophets, he was without honor in his own country, and it is not to be wondered at that he should receive his first great recognition abroad.' He felt that his work was less appreciated in England than in other parts of the civilized world.

But it is not necessary to be a Lister or a Jenner to be a wholesouled, vigorous, intelligent and successful general practitioner. The old-fashioned general practitioner, Dr. McClure, is an undoubted success. He is a man of a very high type, and he walks by the light of his own lamp instead of by the uncertain lustre borrowed from others; he is guided by high ideals and a firm belief that right must prevail. Dr. John Brown, he who has shed a literary lustre on our profession, says of the general practitioner: "Everybody knows the doctor, and a very important personage he He brings us into the world and he tries to keep us there as is. long as he can, and he is with us at that strange last hour which comes to all when we must leave this world. People should trust and obey the doctor; they should speak the truth to him and they should reward him. On the other hand, it is the duty of the doctor to cure his patients, to be kind and true to them, to forewarn them, and, lastly, to keep his time and his temper." But the beau ideal of the medical practitioner of to-day is Lord Lister—the man who sent surgeons smiling into the operating room, certain of success. We are daily and hourly offering up our meed of praise to the humble Lister, and only those who remember the pre-antiseptic days, now long since passed, can appreciate to the fullest extent the greatness of his discovery. Modifications may have been made from time to time, but none of these improvements of technique has detracted one iota from the originator of Listerism.

When we look into other fields there are many we may well admire. Surely the man who prevents disease and takes away his own occupation is unselfish to the last degree, and may be regarded as an ideal. We do not pay as much homage as is due to sanitary reformers like John Simon. As a consequence of the work done by the pioneers in this field the state now interferes and forces health upon the people. Parents and children, employers and employed, vendors and buyers, are alike protected by the state health authorities, and medical supervision is provided in case of epidemics.

The doctor who travels off into the fields of literature can scarcely be considered an ideal, but such men have added lustre to the profession, though few of them have prospered as physicians. It must be acknowledged that a man cannot master two trades at the same time, though Brown advised "the fine confused feeding" of miscellaneous reading and thinking. Anything like a complete enumeration of the medical men who have made valuable contributions to *belles lettres* would fill a volume.

To attain success we must be prepared to accept risks-risk of life, risk of reputation and risk of health. No great success has ever been obtained without labor, without hours and hours of incessant toil. We are in great need of the workers-the reapers are few while the harvest is great. Let it, therefore, be our aim throughout life to assist by every means in our power, by the force of example, by kindly encouragement, the young men who are found willing to work and who do work willingly and well. According to our ideals will be our idea of what constitutes success. There are many paths to the wished-for goal, but it requires the same exertion to travel any of them. There will be obstacles in all paths to be surmounted, and while working hard in one field it is well to broaden the mind by dipping occasionally into other fields. than our own, as such a change gives rest, and such a rest is beneficial. The successful man learns rather to act than to speak. Harvey did not make a desirable family doctor, but his mind was of such a mould as often achieves success; while it fitted him for the work in hand it unfitted him for practice.

Away out in the country districts, driving for miles and miles, in daylight and darkness, in good weather and in bad, snatching sleep as best he can, without holidays, without a break, without a minute of life to call his own, works another of our ideals, looked up to by all the countryside as a guardian angel in time of danger. It would seem that he is not a man to be envied, but we know that he has the love and esteem of those to whom he ministers. He is a high type of a successful man; not, however, when judged from a pecuniary point of view, but when estimated as a man who is valuable to his fellows.

"Luckless is he whom hard fate urges on

To practice as a country surgeon;

To ride regardless of all weather,

Through frost and snow and hail together,

To smile and bow when sick and tired,

Considered as a servant hired."

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But the poetic muse was mistaken. He understood the work accomplished but did not adequately understand the greatness of the reward.

Of late a mould of commercialism has been spreading over our profession, and it will be necessary for our Academy to give this matter due consideration at an early date. Are we to be commercial, or are we to stand by the splendid traditions of the past? Is the practice of medicine to be continued as a trade and not an art, or as an art and not a trade? The safety of a confiding public demands that the art be uppermost, and that this ideal condition which has existed for so long shall continue to exist. John Brown, who has so beautifully said so much, tells us that " honey is not sweeter in the mouth, or light better to the eyes, or music to the ears, or a warm, cosy bed more welcome to the wearied legs and head, than is the honest, deep gratitude of the poor to the young It is his glory, his reward. He fills himself with it, and doctor. wraps himself all round with it as with a cloak, and goes on with his work happy and hearty. The gratitude of the poor is worth the having, and worth the keeping, and worth the remembering. Brown had attended the wife of Sandy Campbell, and after having met Sandy he went home and wrote that he could see written on Sandy's face the thought, "God bless him, he saved my Kirsty's life," and he could see that he ran back in his mind all those twenty years and laid out his heart on all he remembered, and that did him good, and did the doctor good, too, and nobody any ill." Gratitude is one of those things that people can give, and do give, and are never a bit the poorer, but all the richer. Charity should be written in letters of gold on the brow of every doctor, and what he gives in charity will come back to him increased a thrusandfold in the heartfelt gratitude of suffering humanity. His heart should be full of love, and light, and sunshine, and uplifted with the nobleness of his calling.

> "The night has a thousand eyes, And the day but one; Yet the light of the bright world dies With the dying sun.

"The mind has a thousand eyes, And the heart but one; Yet the light of the whole life dies When love is done."

## IDEALS IN THE ACADEMY.

The work of organizing the Academy has been completed. The committees appointed for the purpose have performed their work faithfully and well, and a foundation has been laid which we hope

will ensure success. A constitution and by-laws have been framed, requiring in my opinion but little change, and it is hoped that only urgently needed changes will be made. As an Academy we know no university, no school, and no circle of medical men. The Academy is for the use of the profession of the city and of the province. Let us sound a note of warning on this point at our inaugural meeting—unity, peace and concord will be best preserved amongst us by a determination to allow the control of no party, whether that party be connected with the university or the outside profession. And in this manner we will be best able to ward off the demons of discord.

Our Academy is yet but an infant, and as the infant grows its requirements will be greater. We must appeal on its behalf to those whose good fortune it is to accumulate wealth and whose noble generosity urges them to use it for the benefit of mankind. While such benefactors will be aiding this Academy by increasing our resources and enabling us to put before the members of the profession that which keeps them in constant touch with the best developments in the profession throughout the world, they will be benefiting humanity in general.

It is essential to the vigorous life of the medical community that free discussion of the all-important problems of life and death shall take place frequently, and that there shall be an exchange of ideas and a comparison of experiences. Here the old must teach the young, and the young may do much to keep the old in touch with the march of progress. " Medicine in the not distant past but held the shadow of knowledge, it now holds the substance; it labored long in hopeless efforts to be of use, it now waits upon humanity with the most brilliant service." Much has been accomplished. The culture tube and the microscope uncarthed priceless treasures, and we are now looking carefully into the question of immunity, which, once understood, will be followed by a rational therapy before which the great life-saving discoveries of Jenner and Lister may fade into comparative insignificance. But there are vast fields vet unexplored. Cancer stalks in our midst to-day just as it has done for centuries, and we are no more able to afford relief now than in the past. To meet, to discuss, to learn from one another, and to put forth a united effort we must be organized. The medical profession has always lacked organizing power, the power the Academy should be able to wield in this community. Let the first organized effort be to provide an assembly room for our meetings. In doing this no encroachment should be made upon the small trust fund already established, and no building should be begun until all the money required has been subscribed. I would suggest that committees be appointed to deal with this matter.

We should exact a high standard of conduct, but at the same

time we should endeavor to protect the business interests of our brethren, and to put forth a concerted effort to do away with all abuses that tend to rob us of our just emoluments. Fair fees should be paid for the work done, but they should be properly curtailed in the interests of the best traditions of the profession. The doctor's daughter says that her father does not work for money but for the good he does; but such a sentiment, if idealistic, will not provide her with food and raiment. Most assuredly our first consideration should be for human life and human suffering, and the well-being of the community at large, but, as John Brown says, we must have our reward. Gratitude and honor will not pay the butcher and the grocer. The incomes of our brethren have fallen off of late years, while the necessities of life have increased in cost. Easy circumstances elevate and prevent that blunting of the feelings that is produced by poverty. Charity begins at home. Let us, then, as an organized body, look into this question and endeavor to find a cure. In England it has been taken up by Sir Victor Horsley. The profession appears to be overcrowded from two factors; first, the large number entering the field; second, the greater control of disease owing to improved sanitation. Few of the liberal professions can boast a worse remuneration, and we are putting forth every effort to further curtail our incomes by further curtailing preventable disease. It is our duty, however, to see to it that the food and water supply of communities is sacredly guarded, and here in our own city there is much missionary work to be done in this respect. Pure food and water and effective drainage should be procured at any cost. By unity we can accomplish much.

Peace, gentle peace, is pleasant; but there are "wagging tongues in every parish," and doctors are estranged from one another for life owing to a lack of mutual understanding. New ideas seem to beget ruthless criticism. Such eminent men as Liston and Syme quarrelled most fiercely after being close colleagues. While we exhort the members of our profession to dwell together in peace, we do not ask them to sacrifice principle for the sake of peace. Our Academy, we hope, will promote harmony. Having reached the half-century mark, and having fought many fights, I am convinced that infinitely more good may be accomplished by the ways and means of peace. Let the methods adopted to attain our ends be manly and above board, so that the practise of our profession may indeed be an honorable calling. Bickering is said to originate with the older men. Be this as it may, it would be the ideal part of the younger men in all quarrels to keep their own counsel in the interests of peace. Envy has been called the shadow of success, and detraction the echo of its voice; but envy, so common to the human race, might wisely be buried in the deepest recesses of the heart and be known to none but its unfortunate pos-

sessor. Fellowship should actually mean what it implies; a spirit of comradeship should prevail, and if we cannot become close friends we can at least remain loyal comrades. Women have entered the lists as friendly rivals, and perhaps formidable ones, but they should be received on terms of equality. Reciprocity in medicine is no doubt an ideal condition, but in the overcrowding of the profession we have its chiefest stumbling-block and the strongest argument against it under existing circumstances.

The well-being of our profession in Toronto has been discussed from time to time by one who has been particularly interested in the formation of this Academy. We have benefited by his kindly encouragement, advice, and princely generosity-I refer to Professor William Osler. From him I do not hesitate to take the text with which I intend to conclude my address. This is the first presidential address delivered to the fellows of the Academy of Medicine, Toronto, and the text appears peculiarly appropriate---it is a plea for Unity, Peace and Concord, so necessary if we are to achieve any distinct success. If on this occasion we followed the customs of a well-known English medical society we would commemorate by name not only one but all of our benefactors, and would urge others to follow in their footsteps; we would exhort young practitioners to carry on original research, and, finally, we would beseech all the Fellows of this Academy to continue in unity, peace and concord.

Ten years ago when Lord Lister visited our city he told us that the scientific investigation in which he had been engaged for the greater part of his life had been to him an unmixed joy, and when he was able to see the results of his work his joy was increased a thousand fold. What a magnificent reward! Let us hold up these rewards before our young men to encourage them to emulate Lister and others of like aim. As an Academy we will be judged by the work we do, and let us therefore hope that the work accomplished will fulfil the most sanguine expectations of the most sanguine Fellow present.

## THE TREATMENT OF TUBERCULOUS ARTHRITIS.\*

#### BY A. PRIMROSE, M.B., C.M., EDIN., M.R.C.S., ENG.

Associate Professor of Clinical Surgery in the University of Toronto. Surgeon to the Hospital fo S.ck Childreh, Surgeon to the Toronto General Hos, ital.

THE tuberculous nature of certain forms of arthritis was recognized nearly a century ago, yet the clinical picture which permitted an accurate diagnosis, at all events in the early stages of the disease, was not clearly defined until a comparatively recent date. A paper read by Croft and the discussion which followed before the Pathological Society of London in 1881 indicates the doubt which then existed regarding the true nature of these joint affections. The paper was accompanied by excellent drawings by Greenfield, illustrating the histological character of true tuberculous joint lesions, and, after viewing . these drawings, one may be surprised at the uncertainty which continued to prevail, until one recalls the fact that it was not until the following year (1882) that Koch published his discovery of the essential etiological factor in the development of tuberculous disease, when he demonstrated the specific bacillus, and among other tissues of the body found this organism in affected joints. Previous to Koch's discovery the continental surgeons had been insisting that tuberculous arthritis was a common affection, and this led Croft twenty-five years ago to express some doubt regarding the hostile attitude of his colleagues towards this creed by exclaiming, "Are English surgeons wrong and German surgeons right? Is tubercular disease of the joints more common than we have supposed ?"

I mention this historical fact to show that there is excuse for the somewhat frequent change of attitude of surgeons in recent years towards the question of the treatment of tuberculous arthritis because here, as in other similar questions, the method of dealing with a particular lesion in the tissues of the body is modified necessarily by an accurate kno<sup>-1</sup> edge of the pathology of the disease, and consequently the purely empirical methods of treatment give way to those established upon a true scientific basis. Koch's discovery was the signal for the establishment of a series of investigations which are still in progress and which we believe are by no means yet carried to a final issue, and, in the future, we must ever modify our treatment as we learn more of the conditions under which the bacillus thrives in the human tissues and is

\* Read at the meeting of the Canadian Medical Association at Montreal.

capable of producing and maintaining the lesions with which we are familiar.

A few years ago a prominent British surgeon advanced with great persistency the teaching that tuberculous disease of the joints (more particularly in the hip) should be eradicated by operation as soon as one was able to make an accurate diagnosis. Many surgeons adopted these views and nothing can better illus trate the way in which we are influenced in our procedure by the results of experience and by more accurate knowledge of the progress of disease in the tissues, than by observing the practically universal abandonment of that doctrine, and within the last decade we have come to recognize that in hip-joint disease the best results are obtained by conservative non-operative methods; on the other hand the exceptional conditions under which operative measures are demanded are becoming much more clearly After an experience extending over fifteen years in defined. connection with the Hospital for Sick Children in Toronto the writer has had considerable opportunity for observing the results of treatment in these cases. The evidence is all overwhelmingly in favor of conservative treatment, rest is secured by efficient splinting and the patient is placed in the best possible hygienic surroundings.

In connection with the Hospital for Sick Children in Toronto there is an institution known as the Lakeside Home, which is situated on the shores of Lake Ontario on Toronto Island. This institution provides the summer quarters for the patients of the City Hospital. In the Lakeside Home is extensive verandah space off each ward, so that tuberculous patients are able to live practically in the open air. The progress made by such patients who, in addition to fresh air, get good nourishing food and careful nursing, is very marked. Not infrequently a serious case of tuberculous arthritis in the City Hospital is with difficulty tided over the winter and early spring months, with perhaps little prospect of improvement; when such patients are transferred to the Lakeside Home the critical stage is often passed with safety, and recovery, which had hitherto been doubtful, is ensured. In this institution, therefore, we have a graphic illustration of the benefit of open-air treatment of tuberculous arthritis.

In conjunction with other conservative methods, Bier's treatment of inducing hyperemia by bandaging is of undoubted value and may be employed with great benefit in many cases. One may also refer to the use of Wright's tuberculin, which is at present extensively used by some, but with varying effect. In the Hospital for Sick Children, Toronto, it is being tried at present, but it is too early to speak of the results.

Whilst thus advocating in general the conservative non-oper-

ative treatment of tuberculous arthritis, we recognize also the fact that operative measures are not infrequently indicated. Where the conditions are becoming progressively worse in spite of efficient conservative treatment, operation may often be undertaken with advantage. Among other circumstances, the question of operation and the method of its performance is affected by the age of the patient and by the particular joint of the body which is the seat of disease.

Abscess may develop at any stage in the course of a tuberculous arthritis. It not infrequently forms before the cavity of the joint has become invaded by disease. The most important fact to appreciate respecting tuberculous abscess is that it very often forms the medium by which a purely tuberculous arthritis is converted into one of mixed infection. Then, in turn, it is to be noted that when mixed infection occurs we see the most disastrous results of tuberculous disease. When, for example, a pyogenic infection is engrafted upon a tuberculous one, then destructive processes very rapidly lead to conditions which often endanger the life of the patient, or, short of that, may necessitate the sacrifice of a limb or the loss of function of a joint.

The method of formation of a tuberculous abscess may readily The central portion of a mass of tubercles caseates be studied. and becomes necrotic because, being an extra-vascular process, the nutrition of the centre of the mass is ill-provided for. This caseous centre becomes liquified by the effusion of serum into it. The serum contains leucocytes, but not so many as in the pus of an ordinary septic abscess. The abscess spreads by fresh tubercles developing in the periphery and invading the surrounding inflammatory area where more or less fibrosis has occurred, whilst the older tubercles break down and caseate and the fluid in the centre increases in amount. The pus of a tuberculous abscess thus contains as structural elements a varying amount of necrotic debris, which has become detached from the wall, and a few leucocytes. The abscess usually spreads in the direction of least resistance and is often confined in its course between fascial planes.

For the purpose of treatment it is necessary to recognize the various layers of which the wall of such an abscess is composed. There is an outer zone of fibrous tissue, then a zone of activelygrowing tubercles, lastly, caseous and necrotic material which immediately surrounds the cavity containing pus. It is also necessary to observe 'hat the pus of a tuberculous abscess is sterile in most instances, but occasionally the bacillus of tubercle may be found therein. This pus, however, forms an excellent culture medium for the growth of pyogenic organisms, and hence such an abscess when opened may readily become the seat of a

mixed infection. It is this circumstance that makes abscess formation in the course of a tuberculous arthritis so grave a complication, because once mixed infection has occurred, and we no longer have to deal with a purely tuberculous process, there is induced a septic condition which soon leads to destructive inflammation of a most serious and usually extensive character. This, in fact, forms the most fatal complication of tuberculous arthritis.

The chief object in view, therefore, in the treatment of tuberculous abscess is to prevent mixed infection, and if this is accomplished, then its presence does not add materially to the seriousness of the case. Operative interference is not always indicated, because these abscesses occasionally disappear spontaneously and in such cases the course of the disease is in no way affected by its development. When, however, the abscess is observed to enlarge progressively, and more particularly when it tends to approach the skin or mucous membrane, then operation is indicated.

· The operative treatment consists in the incision of the abscess. This must be carried out by cutting into its cavity at point which is not dependent and the incision so placed that a considerable thickness of tissue is cut through before the cavity is reached. One must not open at a point where the abscess has approached the skin, else failure to prevent mixed infection will undoubtedly occur, chiefly in consequence of the fact that the wound will not heal by primary union. After evacuation of the abscess contents the wall is thoroughly curetted; a flushing scoop is useful for the purpose. A piece of iodoform gauze is then seized in a pair of artery forceps and being carried into the cavity is rubbed vigorously upon the walls, so as to further curcte and remove what debris remains. This process should be repeated several times, until a smooth, firm wall, free from caseous material, remains. The cavity may then be flushed out with sterile water. The wound is carefully stitched up without drainage. The deeper parts of the wound may with advantage be closed by absorbable suture, and, if thought necessary, several layers of suture may be introduced, the skin being closed with horse-hair, and an antiseptic dressing secured by a bandage applied so as to apply equable pressure over the site of the collapsed abscess. The greatest care must be taken with the antiseptic technique. Occasionally the cavity fills up and leakage occurs, the line of incision breaking down; when this takes place a second curettage may often secure a successful result. The desired end may even be obtained after a third operation, but if a culture from the cavity at any time shows the presence of a pyogenic organism it is useless to persist; when this is the case efficient drainage must be provided from a dependent opening.

The writer has employed this method of treatment for the past ten years. One patient who developed a very large abscess in hip disease was treated in this way six years ago. The incision healed by first intention and there has been no recurrence. Another patient two years after the onset of hip disease developed an abscess which approached the surface on the outer aspect of the thigh. It was opened and treated and it healed by first intention. Ten months afterwards another abscess developed on the inner aspect of the thigh; this was treated in similar fashion, and it also healed by first intention. It is now three years since the last operation and there has been no recurrence and the child is now going about without a splint.

My colleague, Dr. C. L. Starr, has reported recently fifty-five cases treated in this way at the Hospital for Sick Children. Seven of these broke down after being sewn up and forty-eight as far as could be traced have remained perfectly closed after periods varying from four months to six years.

It would appear that the method of treatment which I have advocated has not proved successful in the hands of all those who have tried it. This fact provides a good excuse for referring to a form of treatment which was suggested some years ago and which is to-day practised so efficiently by many surgeons.  $\mathbf{It}$ may be wise to enquire into the possible cause of failure. A surgeon can only speak with certainty of his own experiences and one may positively assert that if one's results were only half as good as they are, it would still be justifiable to advocate this particular method of treatment, because it affords the most certain means of preventing mixed infection, recognizing the fact that such infection is almost invariably produced sooner or later after a drainage tube is introduced into an abscess cavity. The writer would even go further and assert that in his opinion the insertion of a drainage-tube into a tuberculous abscess is wholly unjustifiable. Failure in obtaining the ideal result is undoubtedly sometimes due to the fact that the abscers has been allowed to approach the skin too closely; under such circumstances it readily becomes infected and is probably already septic before operation is undertaken. Then again the choice of locality for the incision is important; it must not be dependent and it must be carried through considerable thickness of tissue.

Excision of a joint or a less extensive operation is sometimes called for. Where, for example, in spite cf efficient conservative treatment, the disease makes progress and serious destruction of joint structure is threatened, or where constitutional symptoms become grave; operative measures are necessary. In long-standing cases, too, which have become septic and where sinuses exist we must provide free drainage and this occasionally involves an operation, possibly a complete resection of the joint. In desperate cases amputation may be necessary, as holding out the best prospect of saving life.

When the question of operative interference comes up for discussion one cannot lay down definite directions for guidance from a general standpoint, as one must be guided not only by the extent of the disease but also by such circumstances as the age of the patient, the particular joint affected, etc. For example, if disease in the knee joint is to be eradicated in a growing child, one would invariably prefer an arthrectomy rather than a complete excision, so as to preserve, if possible, the epiphyseal cartilages and so interfere to the least possible extent with the growth in length of the bones and thus provide against an undue amount of disparity in the length of the limbs. In the adult, on the other hand, complete excision is preferable, carried out in such fashion as to secure complete bony ankylosis of the femur to the tibia. Excision of the hip is sometimes necessary, but the functional result is not as a rule good; it is always advisable to avoid removal of the head of the femur if at all possible. Ankylosis may occur at the hip joint and if a faulty position of the limb has been assumed it may be necessary to perform osteotomy to improve The writer has had occasion to do osteotomy of both function. femora in double hip joint ankylosis.

In general, again, it may be stated that operation is more frequently performed in the adult than in the child, because in the former case it is often impossible to secure adequate treatment over a period of years, such as may be necessary to effect a cure by conservative treatment. An adult may not be able to afford the necessary time, and therefore operation is justifiable to secure a more speedy convalescence.

In ca.es of definitely localized areas of disease, where conditions progress unfavorably, it is often possible to remove these foci without opening the articular cavity. This is more particularly the case in the knee, and more rarely in the region of the hip. I have succeeded thus in removing disease from the lowcr end of the femur and the upper end of the tibia. In one case 1 removed disease from the femoral neck by tunnelling through the great trochanter.

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The results aimed at, as to whether or not one desires to secure a movable joint, will, of course, vary with the joint affected Thus, at the elbow one wishes mobility, and, in my experience, a most useful joint result may be obtained after excision, bu. In the knee, on the other hand, where stability for purposes of sup port are so essential, firm bony ankylosis is aimed at.

I may conclude this paper by referring to certain cases in my own practice which I have been able to follow up so as to record

the results of operation as observed some years after treatmen; by such means.

Complete excision of the knee joint is an operation which, when successfully carried out, secures a good functional limb with, of course, a stiff joint.

A boy 11 years of age developed knee joint disease, and cighteen months subsequently had a tuberculous abscess, which was opened and drained. Mixed infection followed and several sinuses formed. He was kept on expectant treatment for eight years, during the latter four of which I saw him from time to time. Whilst a cure was not effected, yet one managed to tide him over several years without inducing the shortening which would have been produced by interfering with the epiphyses. The disease now, however, progressed to complete disintegration of the joint, and his general health was suffering, so that when he was 19 years of age I performed a complete resection of the joint. The tissues about the joint were riddled with sinuses, so that it was impossible to obtain primary union, but bony ankylosis was eventually secured with closure of the sinuses. The result of this operation may perhaps best be appreciated by noting that eighteen months after the operation he was able to swim a measured mile; he then had 3 1-2 inches of shortening. He has remained in excellent health since and has a good useful limb to-day; it is now eight years since the operation.

A second case of complete resection was performed by Kocher's method on a man 28 years of age, who for fifteen years had suffered from tuberculous trouble in the knee. In this case there had been complete disintegration of the joint structures, with an abscess in the head of the tibia; no open sin...se existed. Primary union was secured and perfect bony ankylosis. Three years subsequently the patient when he presented himself for evamination had one inch of shortening; he weighed 200 pounds and was in excellent health. These conditions exist to-day, seven years after operation.

A third case illustrates the excellent results which may be obtained under apparently very adverse conditions. The following is the history, briefly narrated:

January, 1900.—Trouble in the right knee began, the patient being 20 years of age. May, 1901.—Orchidectomy for right tuberculous epididymitis. September, 1901.—Hard nodules detected in each lateral lobe of the prostate. September, 1901.—Complete resection of the knee joint. January, 1902.— Trbereulous stump of right vas dissected out. February, 1902.—Induration noted in right seminal vesicle. April, 1903.—Orchidectomy for left tubereulous epididymitis.

At the time of the resection of the joint the anterior pad of synovial membrane was greatly thickened and pulpy and contained a small pocket of pus; the semilunar cartilages were

destroyed and the articular cartilage over the femur and tibia completely eroded. There was a large pocket of pus behind the tibia, extending three inches down the calf. The patella was also eroded. The wound healed by primary union. One year after he was walking with comfort with one inch shortening, and to-day, six years after the excision and four years after the last orchidectomy, he is in apparent excellent health and has a good useful limb.

The case further illustrates the fact that the existence of multiple lesions is not necessarily a contra-indication to operation.

A fourth case may be alluded to, that of a man 28 years of age who had tuberculous trouble in the left knee for seven or eight years. Arthrectomy was performed by Dr. McKinnon, in November, 1902, and the synovial membrane dissected out. In November, 1904, I performed complete resection. The wound healed by primary union and complex bony ankylosis occurred. The patient, however, was unfortunate enough to contract arthritis deformans in a number of joints of the body and is completely crippled thereby. There is some satisfaction, however, in knowing that the limb in which excision was performed is the one in which he has most complete comfort under the trying conditions from which he now suffers.

A fifth case required a somewhat unusual operation, namely, excision of both knee joints. A child 8 years old came under my care, with a history of tuberculous disease which had been contracted in infancy. The child had never walked and there had been absolute neglect, so that extreme flexion had occured, with ankylosis. I performed complete resection of the knee in each extremity and obtained bony ankylosis. Here the shortening will not be of material moment, as there will probably be no disparity in the length of the limbs, both sides having been dealt with by similar methods.

The operation of *arthrectomy* in young subjects suffering from tuberculous disease of the knee joint is, as a rule, attended with good results.

The first case of this nature to which I refer is that of a child 11 years of age, with tuberculous disease in the knee joint, accompanied by one inch of lengthening. There was no improvement under expectant treatment and I performed arthrectomy, dissecting out the anterior portion of the synovial membrane, which formed a pad of gelatinous consistence fully one inch thick. The articular cartilages were eroded in spots and were curet.ed along with a cavity in the external condyle of the femur, and another in the head of the tibia. The wound healed by primary union. The operation was performed nine years ago and he has had no trouble since.

The second case of arthrectomy was that in a child 12 years of age. Disease had existed in the right knee for four years previously and had progressed, in spite of efficient splinting. There was one-half inch lengthening. In March, 1900, I opened the joint by Kocher's method and dissected out the diseased synovial membrane. The semilunar cartilages had been destroyed and were unrecognizable. The crucial ligaments were dissected out. A cavity in the outer portion of the head of the tibia was curetted. The wound healed by primary union. Seven years after the operation she was examined by me. There was complete bony ankylosis, with about half an inch of shortening. The patient is a laundress and stands all day at the wash-tub. In addition, she walks from three to four miles twice a week delivering the laundry work.

A third case of arthrectomy was that of a child 5 years of age in whom I performed arthrectomy of the left knee joint for disease which had ex.sted for eleven months and was progresing unsatisfic torily. The diseased synovial membrane was removed and cavities curetted in the tibia and the femur, the articular cartilages being eroded. The wound healed by primary union, but two months after the operation the child was unfortunate enough to contract laryngeal diphtheria, from which she died.

A fourth and last case may be noted to show that arthrectomy may sometimes be performed with advantage in the adult, in preference to excision. The patient was a man 50 years of age, with disease in the knee joint, which had existed for seven or eight years. In April, 1903, I dissected out a diseased synovial membrane and removed diseased portions of the semilunar cartilages. There was no indication of bone disease. Six months afterwards a tuberculous abscess developed in the internal femoral condyle and this was opened and curetted. Healing by primary union occurred after each operation and to-day (four years after this treatment) the man enjoys good health and has a useful limb, with ankylosed knee joint.

Extensive operations upon the knee joint must not be undertaken with impunity. After excision of the joint the shock is extreme and the patient is placed in a condition which must be recognized as critical. Hemorrhage at the time of operation must be controlled with great care, but the writer would urge the advisability of proceeding without a tourniquet. In the cases narrated this has been the invariable practice, all bleeding points being secured as the vessels were cut. It is true that a bloodless operation may be conducted with a tourniquet, but the subsequent oozing, because of vaso-motor paralysis, induced by the pressure of the tourniquet upon the nerves, is so great and is maintained for so long a period, that it induces a far greater loss of blood

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than is the case where the operation is conducted without a tourniquet. The only fatality I have had in my series of cases was in a child, whose case I have narrated above, where death was caused two months after operation from laryngeal diphtheria. This result, of course, could not be attributable to the operation.

Where operation becomes necessary in tuberculous disease of the ankle joint, the most satisfactory operation is excision of the astragalus. This may be done by Kocher's method, which gives free access to the joint and permits a most satisfactory survey of all the joint structures, so that all diseased tissue may be removed. One would always prefer resection of the astragalus to excision of the ankle joint, as a much better functional result is secured.

## ON ACID PHOSPHATIC MED.CATION.

## BY A. HITT, M.D., BERKELEY, CAL.

BOUCHARD has said that no cell can even exist without phosphorus, fcr phosphorus is universally found in all animal life, either as mineral phosphates or in organic glycerophosphoric combinations, as nucleo-albumins, nucleins, lecithin, etc., all of which are indirectly derived from phosphoric acid, whether as a phosphatic iron of the hemoglobin, as sodium phosphate in the blood plasma, as a phosphatic combination in the neurons, in combination with manganese in the muscles, or as calcium phosphate in the bones, so that since the acidity of the urine is chiefly due to acid phosphates of sodium, potassium, magnesium, calcium and ammonium, any variation in the proportion of phosphates excreted with the urine must have a direct bearing on the health of the individual.

Whenever the percentage of phosphates excreted in the urine exceeds 0.15 per 100 c.c., there is reason to suspect excessive breakdown of tissue. Our knowledge of physiology teaches us that phosphates of the urine are chiefly derived from alimentary phosphates and where there is a pathological increase, it is of the utmost importance to determine the cause. The phosphorus resulting from disintegration of the protoplasm of organized cellular tissue, apart from the phosphates derived from the alimentary phosphates, however, can only be determined by careful comparison of the alimentary intake and urinary excretions, but the symptoms and history of the case moreover will supplement this abundantly.

The metabolism of the cells of the body are influenced by the amount of free mineral acid, which controls the oxidation and prevents deposits of basic phosphates within the tissues. The acidity of the urine in a normal individual, according to Joulie, of Paris, should be 2.45 expressed as phosphoric acid, and his analysis of the urine of 2,000 patients suffering from a variety of diseases, showed that in the vast majority of cases the urine was hypoacid, since, according to Joulie's estimation of the amount of phosphoric acid in the urine (with calcium saccharate) those showing under 4 of acidity are hypoacid, and those over 5, hyperacid.

The importance of phosphorus in its various organic and inorganic combinations has been well established by the investigations of chemists and physiologists, and although the empirical therapeutic administration of various phosphates, hypo-phosphites, glycerophosphates, organic combinations of phosphorus,

such as lecithin, nuclinic derivatives, etc., has been practiced by at least three generations of physicians, we are only now beginning to understand that such phosphatic medication can only become of real value to the patient under certain conditions.

Joulie, the French chemist, is largely responsible for the light thrown on this question, and a few references to his studies are useful in order to fully understand the arguments which follow.

Joulie's claims are based on the result of years of careful examinations of urine, and have been clinically studied by Cantru. Morel-Lavallee, Alfred Martinet, Launois, and other noted French authorities, with results which establish the superiority of the acid phosphatic medication. Hypoacidity of the urine, depending on oxidation and diminished organic exchanges, modifies the nutrition, especially in arthritic or hepatic cases.

The acidity of the urine is necessary to maintain the solution of the calcium and magnesium phosphates and the calcium oxalate, since when this fluid is insufficiently acid these salts are precipitated in the tissues, giving rise to obstructions in the various organs. On the contrary, when the acidity is hyperacid, the urates are decomposed and uric acid is precipitated, although it is the presence of the normal proportions of acid glycerophosphates which prevents formation of the very insoluble amor-The theory of preventing arterio-sclerosis, based phous biurates. on Metchnikoff's reasoning that the lactic ferments liberate free lactic acid in the intestine, or that the same results are obtainable with Bulgarian butter-milk, are only partially successful in increasing the relative acidity of blood, for while the blood may become lcss hypoacid from the use of these lactic ferments, or by the direct administration of lactic, citric, tartaric, malic, etc., acids, all are reduced to carbonates and water in the laboratory of the economy, and only acidify when sufficiently consumed.

The urinary acidity equilibrium is indispensable in order to prevent disturbances of circulation and certain pathologic conditions connected with hyper or hypoacidity.

In the great majority of urines examined by Joulie, he very rarely found patients with hyperacidity, and 400 analyses of urine made by Bardet, only 15 were hyperacid, and this medical authority concludes that a great number of diseases due to faulty metabolism showed hypoacidity. The analysis of the urine of patients at the Hotel Dieu Hospital, Paris, suffering from chronic diseases, such as tuberculosis, shows that almost all had an alkaline urine. Cantru found out of 80 neurasthenics (dyspeptic or otherwise), that the urine of 7 only were hyperacid, 5 normal, 65 hypoacid, and 3 alkaline. The most common cause of hypoacidity is the replacement of urea CO  $(NH_2)_2$  by ammonium carbonate, since all proteids yield urea by spitting up during the process of assimilation, and this may occur when the liver functions are impaired. The carbonate of ammonium, being carried along in the blood stream, soon determines a general hypoacidity which is a condition favorable to the tubercle bacillus and pathologic micro-organisms which thrive in a distinctive alkaline medium, such as that found in individuals with a hypoacid blood and urine, and this explains the comparative immunity of the arthritics to infectious diseases.

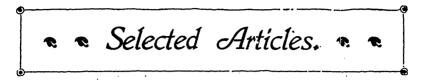
All inflammatory diseases with febrile reaction bring on hypoacidity, since it increases the oxidation. Anemia, polyuria, glycosuria, the alkaline dyspepsias, cancers, scrofula, pneumonia, and all contagious or microbian diseases, show a hypoacid urine, and the same may be said of gouty 3achexia, rachitism, nephritis, gravels of phosphates and urates, varicose veins, hemorrhoids, some skin affections and eczemas.

The hypoacidity, in exaggerating the combustion of the economy, brings about an accumulation in the blood of calcium oxalates and phosphates of magnesium and calcium, which, being insoluble, are most easily deposited in all the organs, especially around the nerves and nerve endings, producing by their irritation and resulting inflammation, painful forms of neuritis and leading to arteriosclerosis, rephritis, and deposits in the articulations.

It has been the fashion for some to dispute the absorption of phosphates and phosphorus compounds other than those existing in organic combination, and this is undoubtedly true in a measure, and basic phosphate may even do positive harm by increasing difficulty of assimilation and causing insoluble deposits in the tissue, but a moment's reflection will explain much that has been hitherto obscure. We have been too apt to lean towards alkaline and neutral phosphatic medication, which cannot be taken up for any length of time by the digestive organs. Phosphorus itself is dangerously irritating in any form, the hypo-phosphates are objectionable, for they require oxidation, whereas the addition of sulphuric and hydrochloric merely liberate existing phosphoric acid from phosphates, and phosphoric acid itself, in order to be utilized for cell reconstruction, must first be converted into the organic form of glycero-phosphoric acid, and this can be done in the chemical laboratory and so save the labor of the patient's organs of assimilation. When, therefore, in order to build up new cell tissues phosphorus in some form is necessary to replace waste, the acid glycerophosphates should be prescribed. The acid glycerophosphates, like all hydro-

chloric acid, prevent secondary fermentations in the stomach and thus do away with alkaline mineral waters, bicarbonate of sodium, lithium, etc., which, while giving temporary relief to dyspeptic patients, really aggravate the trouble, since the stomach is then called upon to increase the secretion of the gastric juice, and, by so doing, naturally increases the alkalinity of the blood and hence the hypoacidity of the urine follows. The object of this reasoning is not to dictate what to use in any specific case, but to impress on the intelligent practitioner the advantage of giving, in all cases where cell nutrition is required, the acid glycerophosphates, since the basic phosphates or even the neutral glycerophosphates just as much as the latest fads of the so-called nuclein and organic phosphorus compounds so loudly advertised are probably more harmful than useful. The best pharmaceutical form of administration is the glycerole, a syrup-like preparation made according to Huxley's formula, each teaspoonful of which contains 4 grains of the acid glycerophosphates of calcium, sodium, potassium, manganese, iron and strychnine (1-125th grain), in the physiological proportions in which the glycerophosphates are found in the organism. The dose of Huxley's glycerophosphates is one teaspoonful for adults at meal times, well diluted with water. It keeps indefinitely in any climate.

We have ample provision of organic phosphorus in the proteids of our food, but these require elaboration before becoming available for reconstruction of nervous material for the protoplasm of new cells, so that there is every advantage in administering acid glycerophosphates, which are available for the formation of new structures and re-establishment of normal acidity of the blood and urine and suppression of phosphaturia. These acid glycerophosphates, therefore, assist digestion, and pass into the blood as sodium acid phosphate.



### TREATMENT OF RHEUMATISM AT CALEDONIA SPRINGS.

DR. E. S. HARDING, in a paper entitled "The Treatment of Rheumatism at Caledonia Springs," and reported in *The Montreal Medical Journal*, April, 1907, writes as follows:

In speaking of the action of the Caledonia mineral waters, it will be as well to pass in review the various salts which they contain. Dr. James K. Cook, in his work on "Mineral Waters of the United States," succinctly says that the "most frequent and most important component in all mineral springs is indisputably water." It may seem superfluous to mention the therapeutical action of water, but if there is not an ignorance of its properties, there is undeniably a great b 2k of appreciation of its merits. I merely mention its action as a diuretic and its power to increase peristalsis when taken cold.

The strongest mineral constituents in the Caledonia waters are the chlorides, the first of which is sodium chloride. The physiological actions of these salts which I wish to emphasize are: The function of regulating the absorption of body fluids and of exudates; the action in the stomach where they combine with lactic acid, liberating hydrochloric acid, thus aiding and increasing the amount of pepsin; the action in the secreting glands of the gastro-intestinal tract increasing the flow of gastric juice, bile, pancreatic juice, and intestinal fluid, promoting appetite, aiding digestion and helping exudation. Therapeutically they are of value in gastric, hepatic and intestinal disorders and especially in atonic dyspepsia.

The most important constituents of the waters, in relation to rheumatism, are probably the alkaline carbonates, which are present as the salts of magnesium, calcium and sodium. Their action is important. Given before meals the flow of gastric juice is excited, given after meals the acidity of the stonrach is neu-They are quickly absorbed and render the blood more tralized. They are diuretic, acting directly cn the renal epialkaline. They are quickly excreted in the urine, rendering it thelium. alkaline, and thus increasing its power of holding uric acid in They are recommended in acid dyspepsia. with erucsolution. tations, pyrosis and flatulence, also in fever, rheumatism, cout, vesical irritation, gastro-intestinal catarrh, engorgement of the portal system, and conditions of uric acid, gravel, and calculi.

Untoward or toxic actions of the waters are occasionally noticed, the principal of which are headache, malaise, constipation, ædema and gastro-enteritis. They are usually caused by taking the sulphur water too soon or in too large quantities, sometimes aided by a too hot initial bath. The person feels a dull, depressing headache with malaise, loss of appetite, furred tongue, feeling of oppression, and bloating. Where there is also constipation, edema may be quite extensive, showing early in the face. The condition is sometimes refractory to treatment. These symptoms, however, are practically never seen where the rules of treatment are carefully followed, and I do not remember of seeing them except at the beginning of a course.

Gastro-enteritis at the beginning or during treatment is far too common, but its cause is not always apparent. The attack is frequently quite severe, and at times almost seems epidemic, but is seldom refractory to treatment. The possible causes are: Indiscretions in diet (both in quantity and quality), the drinking of cold water in too large quantities or too soon after meals, sudden changes in climatic conditions, or the sudden liberation of quantities of uric acid in the system by the alkaline waters and hot baths without sufficient excretion. A mild attack early in treatment seemed to have beneficial after results. A curious result sometimes noticed on drinking the waters is an obstinate constipation. To avoid this a free action must be obtained at the beginning of treatment.

The other important agent in the treatment of rheumatism with mineral waters is the hot bath. The absorption of mineral ingredients in the waters of the baths is generally conceded to be very slight, the therapeutic value being due to the action on the skin and on the circulation. On entering a bath from 95 to 106 deg. F. the first feeling is depression, soon followed by a sense of comfort and relaxation. From mechanical pressure and stimulation the blood is first driven to the internal organs. Then follows increased respiration, quickened pulse, rise of the body temperature, lowering of blood pressure and hyperemia of the The chlorides and carbonates tend to soften the skin and skin. stimulate it, dissolving at the same time the secretions of the sebaceous and sweat glands, removing the adherent epidermic scales and the obstructing masses of secretions. The fatty exudations are saponified, the ducts opened, the capillaries flushed and the glands stimulated. The increased pulse and respiration mean increased metabolism throughout the body, and there is an increased excretion of gaseous material. Brissel has shown that the douche bath has greater effect than a plain one, the changing force of water alternately contraving and dilating the superficial The same writer has demonstrated that the excretion of vessels.

urea and uric acid in the urine was greatly increased by these baths.

In closing I wish to say a word about the future of the Caledonia Springs. They have recently come into possession of the Canadian Pacific Railway Company, and probably no better fate could have befallen them. These springs are favorable for the establishment of a large resort in which to "take the waters," and many benefits could be derived in making them popular. Undoubtedly they rival in many qualities some of the well-known European resorts. It is no slight advantage to have near at hand a suitable place where cases requiring treatment at such resorts can be confidently sent. To gain the confidence of the medical profession it is necessary that the therapeutical or medical claims should receive every consideration. The Springs are primarily a resort for health, and it is to be sincerely hoped that the Company will develop them with this in view. In one way they have already done this by opening a hotel for the winter treatment of cases-a season of the year when rheumatic affections are so com-Establishing a second hotel with lower rates will also mon. bring the means of treatment to a larger class. A word of praise should be given the present manager, who has for years been in touch with the records of the Spring, and who appreciates and considers first the comfort and care of the guests who are there for their health. In the past, guests have been free to use the baths and waters according to their own judgment or according to the abundant advice which is so freely given by friends. This has been detrimental to the best interests of the Springs, and we hope it will soon be changed, and that all will be under medical supervision. Resorts like this soon draw many who are not seeking relief from ailments, but merely distraction or amusements, and some tact is necessary to fuse the different elements. However, no one disputes that the patient has first rights, and I feel sure that his interests will always predominate.

### THE MEDICAL MAN AFLOAT.

## BY H. SHERIDAN BAKETEL, M.D., NEW YORK.

In the spring, when the fancy of the average young man is said to turn to thoughts of love, the fancy of the average young practitioner just out of the hospital. and the recent graduate who cannot afford the time a hospital course consumes, turns to the very serious and practical thoughts of future livelihood.

I desire to call the attention of this class of men to an opportunity which offers a "living" from the start, and which has many advantages quite unknown in any other avenue of medicine—that of a ship's surgeoncy. All transatlantic and many of the coast liners sailing out of New York carry surgeons, whose business it is to guard the health of the passengers and crew.

Unfortunately, with one exception, vessels of foreign register carry medical officers of their own nationality, but with this handicap to American medical men, there are over forty berths on ships open to our graduates.

Of the transatlantic liners, the American Line, the sole line under the American flag, has four ships sailing out of New York for Southampton, and four out of Philadelphia for Liverpool, carrying American surgeons. These vessels are extremely popular with the travelling public, and offer the surgeon excellent opportunities for clinical work as well as for earning a very comfortable stipend. The Holland-American Line has four large ships running between New York and Rotterdam, which carry American medical men, although the company is distinctly Dutch.

Furthermore, American physicians are employed on these ships: Atlas Line to West Indian and Central American ports, twelve; Bermuda Line to Hamilton, one; Panama Railroad Line to Colon, four; Red D Line to Puerto Rico and Venezuela, four; the New York and Puerto Rico Line to San Juan, four; the Sloman Line to Brazil, four, and the Lamport and Holt Line to Brazil, two.

There seems to be among the medical profession a very general misconception as to the professional attainments of the surgeon on steamships. The idea is broadcast that a ship's doctor is usually a man who failed to make good in practice ashore, or whose habits are such as to disqualify him for independent medical work.

It is unfortunate that such a belief is prevalent, because, as a matter of fact, the average steamship surgeon is as well qualified as the average physician ashore, and indeed many of them are men of the highest scientific qualifications. In the first place, the number of men desiring to go to sea as surgeons is so great that steamship companies are enabled to take their pick. The doctor aboard is not the social butterfly he is generally believed. While here and there there may be found a man who devotes much time to social amenities, the majority only see the passengers at the table over which they preside, and occasionally on the promedade deck. He leads practically the same kind of life as his confrère ashore.

The larger vessels seldom carry fewer than 1,500 people on each trip, and in the busier season 2,500 would be nearer an average number. Each one of these persons can call on the surgeon at any time, day or night. His ailments are the same at sea as on shore, augmented by the troubles peculiar to the sea. If anything, he is more particular at sea than when ashore, and

as a result the doctor listens to more tales of woe in one trip than he would in six months ashore.

The surgeon's duties are confined to certain lines not unlike those of the general practitioner. The bulk of his work is with the medical sick, but he gets quite a bit of surgery, from two to half a dozen obstetrical cases a month, some gynecology, ophthalmology, and laryngology. With so many persons depending on one medical man, it is easy to see that his labors are as varied as those of the physician in private practice. A day's work taken from the surgeon's log on a recent transatlantic trip will give a fair idea of what the doctor at sea has to do.

At 3 o'clock in the morning the doctor was called out of bed to see a steerage passenger in labor. The stewardess, who at one time had been a nurse in an English hospital, had allowed matters to progress considerably before sending for a surgeon. As a result, the woman was speedily delivered of a healthy nine-pound bov. The doctor had just comfortably ensconsed himself on a settee for a nap until the first bugle call, when he was summoned to attend a sailor who had scalded his leg and foot while preparing to swab one of the decks. It was breakfast time before the sailor's needs had been attended to. At 9 o'clock the round of visits commenced. In the forward port hospital was a steerage passenger ill with pneumonia, showing a temperature of 104 deg. F., a steward with acute nephritis, a fireman with epididymitis, and a young boy with a septic hand, which he brought aboard. In the after hospitals, devoted to women, were various cases. woman suffering with acute mania demanded considerable attention. A young woman with acute oophoritis, an old lady with facial neuralgia, a child with laryngitis, and another with a hard bronchial cold took up some of the surgeon's time. At 10.30 o'clock came the inspection. For an hour the captain, purser, surgeon and chief steward thoroughly inspected the ship from stem to stem. Every part of the vessel from the first cabin to the third class, and from the saloon to the fireman's forecastle, was gone over, and matters of ventilation, cleanliness, and order were taken up, and nothing which did not meet the approbation of the officers escaped their attention. After inspection, the surgeon made his cabin calls, occasioned chiefly by seasickness. Then followed the surgery hour, where twenty-two of the third cabin pas-engers and members of the crew asked for medical advice. The cases were mostly of a minor nature; coughs, colds, sprains, cuts, and the like, made up the list. Many asked for an "opening medicine," with the result that black draught was liberally given by the hospital steward. The passing of sounds added to the variety of life of one steerage passenger, while another enjoyed the sensation following urethral irrigation. During the afternoon, the surgeon had an opportunity to get a two-hour nap.

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Then came the evening hospital calls, and 8.30 o'clock the evening surgery hour. At this time, it was necessary to reduce a hernia and fit a truss. A bad case of varicose ulcer was treated and a couple of stitches were taken in the scalp of a pugnacious Irishman, who had decried England's greatness in the hearing of a loyal Britisher. A fireman, overcome by the heat in the stoke hole, and another with suppression of urine ended the labors of the surgeon for the night.

Such was a day's routine, and happy was the medical man when, on reaching port, he was able to land every person on the ship. Two went to the hospital, but both were "out of the woods" before the versel again turned its prow homeward.

From this brief *risume*, it will be seen that the surgeon of the big transatlantic liner is no drone. His working hours are long, and much of his leisure time is taken up in the study and perusal of medical literature, of which he usually has a generous supply. The surgeon's library is ample, and up to date, and his medical and surgical equipment are the best.

The remuneration of the ship's surgeon depends entirely upon the size of a vessel, its destination, number of passengers, the length of the trip, and the condition of the weather. Most of the lines employing American medical officers pay the surgeo. about \$720 per year, besides all living expenses. In addition, most lines allow the doctor to send bills for the treatment of all ailments not contracted aboard ship. As a result the income of the doctor at sea is far above the reputed average of physicians' income ashore, \$700.

The surgeons on the American and Holland-American lines are said to average about \$2,500 and living expenses, while the average on the coast-lines above mentioned is about \$1,500 and expenses. On the big ships of the White Star Line, like the Adriatic, Baltic, Cedric and Celtic, all of which carry two medical officers, the chief surgeon collects on an average £800 per year. An added advantage is that there is not one cent's worth of expense for office rent, books, instruments, the keeping of horses or automobiles, telephone, and the innumerable necessities which take so large a part of the income of the practising physician.

Again, sea life is less strenuous than life ashore. Night calls, and they are infrequent, can be made without stepping into the air. There are no long drives, no jealous confreres, no backbiting patients. Sea practice is as near ideal practice as can ever be found in this life.

The young medical man who loves old ocean, and is on the lookout for an opening, can do no better than to accept a ship's surgency (if he can get it), with the feeling that he will not lose caste, for the medical profession has no more high-minded, earnest, and hardworking representatives than those who go down to the sea in ships.—N. Y. Medical Journal.

#### J. J. CASSIDY. M.D. EDITOR.

#### 43 BLOOR STREET EAST, TORONTO.

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Editorials.

# MEDICAL INSPECTION OF SCHOOLS.

It has long been recognized by the medical profession that many diseases from which children suffer originate in neglect of hygiene in the schools. The teachers have no time to devote to the study of disease; it is all taken up with teaching in the classroom. Neither is it reasonable to ask from them accurate knowledge of disease. It should be the duty of the medical health

officer to supply that deficiency by an efficient medical inspection.

That was the conclusion arrived at, in 1902, by the Health Department and Public School Department of New York, who joined forces for the same object-the efficient diagnosis and suppression of preventable diseases in school children. For sanitary purposes New York is divided into districts, which are under the control of the contagious diseases department of that city. Each of the districts is under the care of a medical inspector, who is held responsible for its condition. This physician also attends to the medical inspection of the schools in his district. As part of his work each scholar is examined as to his physical condition according to the specifications of a printed card. The height and weight are noted,-heart examined for any cardiac lesion; lungs for any pulmonary disease; lymphatic glands to see it they are enlarged. Defects of sight, hearing, etc., are noted, as indicated by the list on the card. After it is filled up this card is filed in the department of health, a duplicate being left at the school, in charge of the principal, so that the card may be sent with the scholar, if transferred to another school, and it may be known what the condition of the scholar was on entering the school. When an abnormal condition is noted in the scholar, the parents or guardians are notified of it by post card and requested to take the scholar to a physician. This card is a reply card, and, after the physician-in-charge has examined the scholar, he should fill out the card and send it to the assistant chief medical inspector of the New York department of health. If satisfactory, a readmission card, signed by the medical inspector of the school, is issued by the principal. This readmission card is carried by the scholar to his teacher, who allows him to go on with his weak.

When discase is suspected by a teacher, he issues a card directed to the school medical inspector or school nurse, asking for a diagnosis or a disposal of the case. This card is returned to the teacher, with the diagnosis and disposal of the case made out by the doctor or nurse. When a scholar is excluded from school, on account of a contagious disease, a card is sent to the parents or guardians, notifying them of the fact and informing them that, when free from contagious disease, the scholar 'may resume attendance at school.

. To complete the staff of medical school inspectors, a certain number of nurses are attached to the service. The nurses see to

the cleanliness of the scholars, treat in a special room at the school, when possible, or, at the domicile, pediculosis, itch, impetigo, ringworm, certain forms of conjunctivitis, etc. The usefulness of the nurse, more particularly in treating many of these diseases at the school, is indisputable. The scholar who has itch or ringworm is not sent home, but remains at school without loss of time, and, also, without injury to his schoolmates. Before leaving the school each day the nurse obtains a list of the scholars who have been excluded from school for contagious diseases. These children she visits at their homes, teaches the mothers how to treat them, corrects faults productive of ill-health or contagion, and, in many ways, helps to spread the gospel of hygiene among the poor.

Since the establishment of this system of medical inspection of schools by physicians and nurses, a considerable diminution has been found in the number of cases of contagious diseases in New York, and improvement to the extent of 75 per cent. has been observed in the condition of the scholars.

During the year 1906 the following amount of work was done by 47 nurses in the public schools of New York:

No. of instructions for Trachoma (eye trouble) No. of instructions for Pediculosis (unclean head) No. of treatments for Eye Diseases other than Trachoma No. of treatments for Scabies (itch) No. of treatments for Ringworm No. of treatments for Impetigo No. of treatments for Favus (ringworm of scalp) No. of miscellaneous treatments (cuts, burns, bruises, etc.).	180,401766,600185,4725,75718,23532,5952,34261,624	•
Total treatments (in school) No. of visits to homes No. of visits to schools Miscellaneous visits (not found, stores, saloons and other houses than tenements)	306,025 42,998 27,097 1,708	: : :
Total visits	71,803	

The present staff consists of 65 nurses. The following cities of the United States have a system of inspection by trained nurses similar to New York, but on a smaller scale. The cities are: Boston, 20 nurses; Baltimore, 5; Los Angeles, 3; Grand Rapids, 3; Jersey City, 2, and Orange, N.J., has one nurse.

The American system of medical inspection of schools is coherent, well ordered and practical. Teachers attend to the instruction of the scholars, physicians diagnose their diseases, and trained nurses treat them. J. J. C.

# THE INAUGURAL MEETING OF THE ACADEMY OF MEDICINE, TORONTO.

UNDER very happy auspices the first open meeting of the Academy of Medicine took place last month. It was held in the new Medical Building, Queen's Park. No crowd, no noise, but the allencompassing charm of geniality, and the pleasant familiarity of the community of spirit incorporated in the word "Fellow." But alack and alas, the one thing needful is now a "Chapter House." The Medical Library is a joy to all, so comfortable, tastefully furnished, and well arranged and adapted for small gatherings, but if the meetings of the Academy of Medicine are all held there we fear often there will have to be an overflow meeting in the hall, at least of those members who are fine and large, but not so fine as a cambric needle. And it will be a weighty matter to have so much dignity "sitting out" the numbers on the stairs. So, Fellows of the Academy of Medicine, it behaves us to set a tune to Kipling's rhyme and "pay, pay, pay." All that the present need demands is a large hall and coat room added to the present library building. We cannot expect it to grow up like Jonah's gourd; but we can keep asking and the project will soon become a reality. To return to the meeting, the first part of the evening was devoted to the presentation of two portraits, to Dr. Reeve, Dean of the Medical Faculty of the University of Toronto, and President last year of the British Medical Association, given by the Executive of the Toronto Branch of the British Medical Association, and to Dr. Nevitt respectively. The latter portrait was presented to Dr. Nevitt by the former Faculty and graduates of the Woman's Medical College, of which he was Dean. The College is of the past, as the women medical students now attend the University of Toronto. يود معه به

Mr. Irving Cameron presented Dr. Reeve's portrait gracefully, it goes without saying, for Toronto medical men are justly proud of their Bishop of Medicine, and all feel alike that Mr. Cameron has elevated the standing of Canadian physicians and surgeons both at home and abroad by his personal dignity of deportment and expression. Dean Reeve received an ovation as he arose to accept the portrait; feelingly and with a shy reluctance, which is ever a part of his very fibre, he accepted the gift, but to present it to the Academy of Medicine. He always gives, he gives with his whole heart, and life has never been to him "a having and a getting," but ever "a being and a becoming."

Dr. Duncan, one of the sturdy old Brigade who did so much for the Woman's Medical College in years gone by, presented Dr. Nevitt with an address and portrait. The address was reminiscent and graven in script, "illuminated," the old College on Spruce street and other views of "yester year" adorning the vages. The portrait was unveiled by Dr. Augusta Stowe Gullen, whose aim has been to uphold and strengthen the hands of the medical women of Canada, and no task has been too arduous nor burden too heavy for her buoyant spirit and stout heart to learn or to bear for the sake of her medical sisters. The artist (Mr. Forster) has very characteristically "posed" his subject, restfully sitting in his big arm chair, not in the least looking as if life's duties were all finished, but rather as if a few of "life's guerdons had been won." The artist (Mr. Harris, of Montreal) has not been so happy, unfortunately, in Dr. Reeve's case, in either pose or expression. It seems strange that a student of men should choose to "cut up" such a subject (only head and shoulders Richard Reeve is a unit in physique as in are represented). The well and tensely poised head, the straight, lithe character. body, the long, thin fingers, and the quick, forward movement and alertness should have been suggested (they make the perfect whole of the man), and the trick of smiling with his eyes while his lips retain their lines of firmness, when appreciating a quiet bit of drollery, has been entirely missed by the artist. In the galleries abroad, when glass is put over "an oil," "e have always noticed that the portrait is sunk very deeply in the frame with a wide space between the canvas and le glass, possibly to prevent that cold, grey look that glass always imparts. Dr. Reeve's portrait is framed with the glass almost as closely applied as is usual in the case of an ordinary photograph. Standing around the portrait after the ceremony, we heard the question asked, "Why the glass?" and a very Scotch voice answered, "For preservative purposes seemingly !" Do let us take no thought for a to-morrow, a hundred years away we hope, but clasp the active, respected, still youthful Dean in the arms of the delightful present and - break that glass.

We have not tarried too long in the realm of art, we hope, to

pay a tribute to Dr. J. F. W. Ross, the President of the Academy of Medicine. His address was so well delivered in his clear voice, well-chosen English, and concrete sentences and paragraphs, that it was not only a pleasure, but a privilege to listen to him. We thank him for the opportunity of giving our readers his address in this issue.

His address, in our opinion, was an inspiration, a standard, and a goal not far from the ideal for the Fellows of the Academy of Medicine to attain unto, to maintain, and to achieve. First as individuals, lest there be too marked a distance in the degree of glory of the stars, and as a unit for peace, good-will and the advancement of science in the field of research in the hore that Canada may yet, as a nation, speak to a nation and tell of something new. W. A. Y.

# THE REPRESSION OF TUBERCULOSIS IN IRELAND.

To assist in the repression of tuberculosis in Ireland is a task of great magnitude; but, withal, one which should enlist the best. efforts of all classes of the Irish population. The Irish race abroad, as well as at home, is deeply interested in this question. Even in America, where hygiene is better observed and where the food supply is more abundant than in Ireland, the Irish have a very high death-rate from tuberculosis, almost double that of the Bohemians, who come next on the list. The Hungarians, Russians, and Poles, who are nearly all Jews, show a very low death-rate, according to the United States census. It is pleasing to learn that, at the opening of a Tuberculosis Exhibition in Dublin, October, 1907, a general interest was taken in the pro-The actual promoters of the Exhibition were the ceedings. members of the Women's National Health Association, of which Lady Aberdeen is President. At a conference, held by Lady Aberdeen, October 11th, 1907, in one of the buildings of the Dublin International Exhibition, diagrams were exhibited showing that, as compared with England and Scotland, Ireland's position is unsatisfactory and discouraging. According to one of the diagrams, the deaths from tuberculosis in Ireland, in 1906, amounted to 11,756, a figure much in excess of the gross mortality resulting from any other disease in that year. The ob-

ject of the exhibition, Lady Aberdeen explained, was to offer an object lesson to everyone in Ireland, and that everyone—all classes of men and women, people who were in positions of public authority, methers in their homes, teachers,—everyone, as well as the medical profession, should join in the effort to stamp out this disease. The Exhibition would go to Belfast, and, no doubt, there would be invitations to send it north, south, east and west.

In the evening of October 11th, there was a well-attended inceting in the lecture hall of the Royal Dublin Society, under the presidency of the Lord-Licutenant, Lord Aberdeen, when Dr. William Osler, Regius Professor of Medicine at Oxford, delivered an address on, "What the Public can do in the Fight against Tuberculosis." As an illustration of the victory of human efficiency, the lecturer gave the abolition of typhus fever, which, he said, was due to the efforts of the physicians of Ireland. Until a decade ago, typhus ravaged the country. From 1871 to 1880, there were 7,495 deaths from typhus fever in Ireland. In 1905, there were 68. Not only typhus, but typhoid fever, had gradually disappeared. Dr. Osler also showed that the conquest of malaria had been accomplished by hygicnic work founded on medical dis-Dr. Osler thought tuberculosis was a disease about coveries. which they might have the fullest possible measure of optimism, just as full as about typhus fever and typhoid fever. The cause of the disease was known and it could be picked out as easily as The two sources a beechnut could be picked from other nuts. were from persons with tuberculosis and from the milk of The disease entered the body through the tuberculous cows. breath or it was swallowed with food. Describing the conditions which favored the growth of tuberculous seed in a body, the lecturer said there were three "bads," had food, bad air, and wretched habitations and improper methods of living, and bad drink-alcohol. The great majority would not get tuberculosis if they warded off those three B's and did not cultivate the soil proper for its growth. Then they had learned how to recognize the disease, just by the distinction of the germ, and they knew how to prevent it if they could only get the people to help them in it, and by making the soil unsuitable. They had also learned how to prevent it, if they could only get the people to help them not hereditary.

In endeavoring to suppress tuberculosis in Ireland, where onesixteenth of the entire number of deaths in 1905, viz., 12,000, were due to tuberculosis, augrent campaign should be instituted. First, came compulsory notification; second, control of the cases, as far as seeing that measures of disinfection were attended to, particularly disinfection of a house after the death of a patient, and, most important of all, control by the public health authorities of the hovels in which some of the people lived. The third great thing was the proper care and cure of cases. He advocated separate wards for advanced cases and sanatoria for fresh ones. Sanatoria should be cheap structures, which they could afford to burn down every fifth or sixth year.

Dr. Osler closed a most practical address by inculcating the necessity of enthusiasm and perseverance in furthering the work of repressing tuberculosis in Ireland.

His address should be widely circulated in Ireland, in America, and Canada, too, and it is to be hoped that the quick-witted Irish will meditate on the doctrines he teaches and lay them to heart. J. J. C.

# NEW HEADS FOR THE VARIOUS MEDICAL AND SURGICAL DEPARTMENTS AT TORONTO GENERAL HOSPITAL.

THE Committee of the Board of Trustees of the Toronto General Hospital, on staff reorganization, met on December 6th, at the City Hall. For thirteen months the Committee has been working on the reorganizing of the staff.

The second interim report of this Committee was presented to the Board on Dec. 16th, and carried without amendment. The report is as follows:

"Your committee recommends that the senior professor in medicine and the senior professor in surgery in the University of Toronto shall be *ex-officio* members of the active staff of the Hospital. In the event of these professors being heads of services in the respective departments of medicine and surgery in the hospital, they shall be subject to such regulations as apply to the heads of services, but at the termination of their terms of service as such heads, they shall continue as *ex-officio* members of the active staff.

"With regard to the headship of the services in the several departments, your committee makes the following recommendations:

"(1) That Drs. A. McPhedran, W. P. Caven and G. Chambers be appointed as heads of the services in medicine.

"(2) That Mr. I. H. Cameron, Professor of Surgery in the University of Toronto, be appointed, *ex-officio*, a member of the active staff of the hospital, and that Drs. C. Bingham,  $\Lambda$ . Primrose and H. A. Bruce be appointed as heads of the services in surgery.

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"(3) That Dr. J. F. W. Ross be appointed head of the service in gynecology.

"(4) That Dr. Keineth McIlwraith be appointed as head of the service in obstetrics.

"(5) That Dr. Geo. McDonagh be appointed head of service in the ear, nose and throat department.

"(6) That Dr. R. A. Reeve be appointed head of the service in the eye department. With regard to this recommendation your committee considered it in the interests of the hospital to infringe on the rule as to age limit adopted by the Board, by reason of Dr. Reeve's special qualification of the position. It is recommended, however, on account of such rule, that the appointment, if made, shall come up for special consideration annually."

We offer congratulations to the newly-appointed staff of the Toronto General Hospital.

Some have achieved greatness, but the general consensus of opinion in medical circles is that one or two have had greatness thrust upon them. The day's work, however, will soon tell the tale, and all the men who give freely of their time to hospital work deserve encouragement and at least a little more praise than "scant justice" meted out to them, for, let they who are in "the inner ring" remember, that those to whom has been given much (of opportunity), of them shall much be required, often at great personal sacrifice. Little wonder, then, that one of Toronto's surgeons, upon being congratulated on his hospital appointment, exclaimed, "I am not sure but that I should have received cards expressing 'condolence.'" He had measured up and understood only too well what was expected of him.

Though up to the time of writing we have not received the official list of assistants, the appointments, we understand, are

to be fittingly made in respect to numbers, that is, not too numerous, as often in big undertakings what is everybody's business is looked upon as nobody's concern and receives little special attention.

The great sick-room of this large city, outside the Hospital doors, is also to be congratulated, for the experience and skill of most of the old family physicians of name and fame, and the old "blue bloods" of Trinity School of Medicine (an institution that has not received the consideration it deserved), are still theirs to command.

# "A. B. ' AND THE RECENT HOSPITAL APPOINTMENTS.

Ir is the general opinion in University circles, and especially in connection with Hospital matters, that the MacCallum and Bruce tartans cannot march shoulder to shoulder. The feud between the two clans has been in existence for some little time. notwithstanding the echo of the Bing-Bing of the Cameron Highlanders, accompanied by the softening influence of the Primrose. There has undoubtedly been too much heard from the Laboratory of Physiology in the University of Toronto of recent years, and we are glad that the pibroch of the Bruce clan has re-echoed from tl e hilltops of the Queen's Park, putting to silence the bagpipes of the MacCallums, and, as in the days of the Scottish Reformation "The Bloody Claverhouse" had himself to kiss the dust, he who was given the right at the baptismal font to use initials appearing in the forefront of the alphabet should now be willing to occupy more of the background and resign his too long held post of military dictatorship. w. a. y.

#### EDITORIAL NOTES

Acne Rosacea and Erythema Indicate Gastro-Intestinal Sepsis .- There is comfort for the patient with the rubicund nose, even though the dietary recommended be not to his liking. Dr. Leredde reports (Revue Pratique, May, 1905), that in many cases of acne rosacea, he has obtained good results from vegetarianism. As an addition to the strict vegetarian diet, he allows two fresh eggs a day and mild cheese. Wine is to be replaced by water. On this treatment, eight out of ten cases have been benefited; improvement is generally apparent in a month, and is marked in two or three months. Dr. Savill reports, in "Lectures on Neurasthenia," the results of treatment in two cases of cerebral neurasthenia; one case with a flushed (almost bloated-looking face), and the other with advanced acne rosacea. The patient who had the bloated face, a single lady of thirty, had a lunge appetite, a long history of intractable constipation, a dropped kidney and cardiac dilatation. The cerebral neurasthenia (melancholia), and the flushed face after meals had started about the same time. She was placed in a nursing home, treated with Schott movements, a rigid dietary, electricity and other methods, and, at the end of six weeks, joined her people in the country, and ultimately made a perfect recovery. The second case, the wife of a doctor, had been regarded as melancholic, and had been in several asylums. Her face represented an advanced degree of acne rosacca, which is found in many cases associated with gastro-intestinal sepsis. After six months' treatment by diet, medicines, massage and other measures, she returned to her home after an absence of two years. But, in her case, the treatment came perhaps too late; for, although very greatly improved, she never quite got back her old health of mind.

A Simple Method of Pasteurizing Milk.—The simple method of pasteurizing milk is given in the Eulletin of the Chicago School of Sanitary Instruction, November 9th, 1907: "A quart bottle of milk, with the stopper in it, is set upon a saucer in a two-quart granite boiler. The boiler is filled with cold water up to within an inch or two of the top of the milk bottle. It is then placed over the fire and allowed to remain until the water around the bottle begins to boil. It is then at once taken off the

fire and set aside to cool. The water must not be allowed to boil for any length of time, and the milk must be cooled in the water, the entire process taking about forty or forty-five minutes." It is further stated that this process of pasteurization destroys pathogenic bacteria, such as typhoid bacilli. Pasteurized milk, kept in the ice-box, will remain sweet for over a week. If attention is paid to the directions given, very little, if any, cooked taste will be noticed in drinking pasteurized milk, while its nutritive and digestible qualities are not impaired.

The Responsibility for a Consultant's Fee.- The responsibility for a consultant's fee may involve the issue whether the patient is properly liable for the fee or the patient's family physician. Usuall - the family physician, when bringing in a consultant, acts as the agent of the patient, and the patient is bound by such action.  $\Lambda$  case of this kind is reported in The British Medical Journal, October 19, 1907: "At the Stafford County Court last week, Dr. Charles Reid sued a master carpenter for a fee of £3 3s. for a consultation in respect to defendant's wife. The point at issue was whether the defendant was properly liable for the fee or the defendant's family physician, Dr. Bull. In 1904 the defendant's wife was taken ill, and Dr. Bull pronounced the case to be one of scarlet fever and forbade the husband to go to The defendant, however, persisted that his wife was sufwork. fering only from measues. Defendant alleged that Dr. Bull asked him if he had any objection to another opinion, and defendant said he had none, but alleged that he said he would not be at any expense in the matter. Eventually Dr. Reid was called in and gave his opinion, subsequently sending in an account for £3 3s. to defendant. Dr. Bull admitted that he had never mentioned the amount of the fee to defendant. The County Court Judge (His Honor Justice Ruegg) in giving a verdict for the plaintiff, commented on the fact that defendant, on receiving Dr. Reid's account, had never repudiated the debt nor had he mentioned the matter to Dr. Bull. It had been held before that the person actually calling in a doctor was responsible for his fee, and in this case the question seemed to be, was the doctor who called in Dr. Reid acting as the agent of the defendant? The decision of the Judge indicates that, in his Honor's opinion, he was the agent of the defendant and that the defendant was bound by such action."

The Hot Wet Pack in the Treatment of Excited Cases of Insanity, and in Mania a Potu.-Excited cases of insenity are controlled by the use of the hot wet pack, with cold applications to the head (see Bulletin of the Ontario Hospitals for the Insane, October, 1907, p. 6). If an excited patient does not go to sleep after being in the pack thirty minutes, the pack is repeated several times daily, provided it is well borne, before resorting to hypnotics. Among the latter drugs preference is given to veronal, sulphonal, or trional; in some cases grain 1-100 hyoscine is given hypodermically. Thirty grains of sulphonal, given in a glass of hot milk, produces a satisfactory hypnotic effect. In mania à potu the patient suffers from the depressing effects of a poison, which acts on the heart and nerves. Consequently, eliminating action through the skin, bowels and kidneys, is indicated, together with the administration of food. Prompt and excellent results follow the therapeutic employment of the hot wet pack, used until profuse sweating occurs. This is a safer method of producing sleep in a case of mania à potu than the administration of hypnotics, especially if the patient exhibit symptoms of cardiac The artificial warmth of the hot pack, stimulating depression. cnemata, composed of castor oil and turpentine, and hypodermic injections of strychnine sulphate, gr. 1-30, repeated, or caffein citrate, gr. iii., or digitalis, answer well in this disease.

Piomaine Poisoning.-Dr. Hodgetts, Deputy-Registrar General informs us that on an average for the last four or five years there have been four deaths a year registered as due to ptomaine poisoning in Outario. In the vital statistics of Chicago, for 1906, one death is ascribed to ptomaine poisoning. Cases of ptomaine poisoning are occasionally reported in the medical press, being traced to poisoning by decomposed meat or fish. Tainted meats, as mince meat "warmed over," veal pie, carelessly kept chicken salad, hadly preserved and canned meats, partially-decayed sausages (botulism), have caused violent ~ymptoms of poisoning. Prolonged cooking fails to destroy the toxic action of certain ptomaines in infected meats; also cooked meat kept under certain conditions may become infected with bacteria, as well as when it is raw. On the other hand, bad, putrid meat has been known not to cause toxic symptoms. Fish, poisoning has been produced by eating both the fresh and preserved sturgeon and salmon-meat that are affect ? ... ith an infectious disease peculiar to the fish. Tainted, preserved and canned fish, eels, oysters, mussels, crabs, lobsters,

have more frequently caused symptoms of poisoning. Iı. ome cases there is a choleraic or gastro-intestinal group of sympton :nausea, vomiting, pain, tenesmus with mucous, and bloody steels. Erythema or urticaria with heat itching and swelling of the skin have been observed. Sometimes cerebro-spinal symptoms predominate with convulsions and paralysis. Dryness and constriction of the throat, dizziness, labored respiration, disturbed vision, jerky speech, or aphonia, perhaps rapid pulse, loss of coordination, numbness, coldness of the extremities, dilated pupils, paresis, collapse, and death within a few hours may ensue. Dr. Von Neusser (Disorders of Respiration and Circulation, p. 165) draws a comparison between botulism, that is, poisoning by decomposed sausages and albuminous food (both meat and vegetable preserves), and, the symptom-complex of atropin poisoning, in so far as the intoxication with the toxin of botulism, but not when there is an infection with the bacterium coli and bacillus enteriditis, Gaertner's bacillus. He says: "Among the symptoms are dyspnea, with precordial anxiety, annoying and often spasmodic cough, dysphagia, glossoplegia, dryness of the mouth, paresis of accomodation, paralysis of the ocular muscles, ptosis with cardiac weakness, cold, pale skin, and lividity of the mucous membranes. These bulbar symptoms result from the combination of the toxin of botulism with the ganglionic cells of the bulbar nuclei." He says that "intoxications from eating poisonous fish (unsalted sturgeon), also belong to this group. These fish contain a ptomaine with an action similar to atropin, which is destroyed by boiling, and is thus different from the poison by the Japanese tetrodon, which is not destroyed by heat. The symptoms after the ingestion of the various species, sphyrena (including the barracudas), coryphen (dolphin), and scomber (including the common mackerel), are a red or violet complexion, often considerable edema, especially of the lips and cycl is, difficulty in breathing of an asthmatic nature, occasionally acute coryza with sneezing, lachrymation and spastic cough, and resemble closely urticaria of the skin and mucous membranes, after partaking of strawberries, lobster, etc." In making the diagnosis between ptomaine poisoning and arsenic poisoning, Harrington states that there are three points of difference-in arsenic poisoning there is swallowing because of pain; in ptomaine poisoning the pupils are usually dilated, and the muscular prostration is almost as extreme as in palsy. J. J. C.

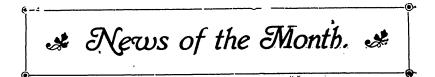
Correspondence. A The Editor cannot hold him-self responsible for any views

# To the Managing Editor, Canadian Journal of Medicine and Surgery,—

Dear Sir,—Before going to New York last month you asked me to read over the proofs of an Editorial, referring to my own life-work, intended for the December number of your excellent journal, as you said you were anxious to have it free from errors. I did as you desired me to do, and carefully went over the proofs twice, as you had directed the printers to send them to me, with the MSS. When the December number came out, I found in the second line of the second paragraph of the Editorial that some one, without your authority, for you were in New York, had made a change, which makes the clause incorrect. The MSS. and the proofs sent back to the printers by me, *fully corrected*, were not changed at all in the line referred to, and read, "And his having *founded* one of the best medical colleges," etc. This, which is correct, has been made to read, "having co-operated in founding."

The paper, and the only paper which first suggested the establishment of the Trinity Medical Faculty, was written by me very early in 1871. In writing it, I received no suggestion from anyone, and no medical man ever knew of it until it was approved of. I have the original paper still, and the party who made the above change, can see it any time he chooses to call on in for the purpose. My memorandum of 1871 suggested a basis on which alon a successful medical faculty might be set agoing, and on this basis it was established—so that to say that I had "co-operated in founding" the medical faculty is entirely incorrect. As the person who first suggested it, I was its founder, as all Canada fully knows

December, 1907.



# A STEP IN ADVANCE BY CORNELL UNIVERSITY MEDICAL COLLEGE.

THE Faculty of the Cornell University Medical College after mature deliberation have concluded that the usual "high school " education so commonly accepted as sufficient preparation for thestudy of medicine is inadequate. The great advances in recent years in all the natural sciences have led to corresponding advances in the practice of medicine and surgery, and this has overburdened the medical curriculum as now in operation for theaverage student to such an extent that the present four-year course in medicine is impossible. Too large a proportion of the time is given up to fundamental and non-professional instruction in chemistry, physics, biology and other kindred subjects, upon which the knowledge of diseased conditions is founded, and too small a proportion to the specialized information which is imperative in the education of a properly equipped physician. The period of four years is deemed sufficient at present if devoted entirely to strictly medical subjects; otherwise, it is not. Without attempting to enter into a discussion involving the advantages of a strictly scientific or so-called academic course in arts, philosophy and literature, the President and Trustees of Cornell University have decided to adopt the requirements advised by the Faculty of the Medical College for admission to the course leading to the degree of M.D.

Therefore in and after 1908, candidates for admission to the Cornell University Medical College must be:

1. Graduates of approved colleges or scientific schools; or,

2. Seniors in good standing in Cornell University, or in any other approved college or scientific school whose faculty will permit them to substitute the first year of a professional course for the fourth year in arts and science, and who will confer upon them the bachelor's degree upon the satisfactory completion of the first year of the course in Cornell University Medical College; or,

3. Persons who, while not possessing a bachelor's degree, give evidence by examination that they have acquired an equivalent education and a training sufficient to enable them to profit by the instruction offered in the Medical College.

In and after 1909 all candidates for admission to the Cornell University Medical College must have at least such knowledge of physics and inorganic chemistry as may be obtained in college by a year's course in these subjects when accompanied by laboratory work; and in and after 1910 all candidates for admission must possess a similar knowledge of biology.

Although all "approved colleges or scientific schools" offer courses in the natural sciences, they are not always obligatory, and it was felt to be unfair to a few possible students to demand these subjects the first year the new requirements are in operation.

The Trustees also felt that it was unfair to refuse the exceptional student of unusual abilities who could obtain independently an education equivalent to that implied by a degreefrom a college or scientific school, and there will, therefore, bea committee appointed from the faculties of the different colleges in the University to determine the qualifications of such individuals who may apply for admission but without the requisiteofficial certificates.

# ALEXANDER MACTIER PIRRIE, A MARTYR TO SCIENCE.

A CAREER of great promise has been cut short by the untimelydeath of Mr. A. Mactier Pirrie.

The son of the late Mr. Alexander Pirrie, C.E., he was born on Oct. 2nd, 1882. He obtained his B.Sc. with honors in anthropology at Edinburgh University, in 1904, and qualified as M.B., Ch.B., in 1906. He obtained the Carnegie Research Fellowship in anthropology and was appointed anthropologist to the Wellcome Research Laboratories, at the Gordon Memorial College, Khartoum. He went out to the Soudan in the autumn of 1906.

Under the direction of Dr. Andrew Balfour, the Director of the Laboratories, Dr. Pirrie made his first expedition up the Nile to the Southern limits of the Soudan, and penetrated to remote parts of the Babr-el-Chazal. His second expedition took him to the borders of Abyssinia. On both occasions he passed through some of the most pestilential regions of Africa, in connection with certain anthropological and physiological researches, appertaining to tropical diseases, upon which the Laboratories: are engaged.

Unfortunately, he contracted tropical fever (kala-azar) and was so prostrated as to be compelled to return to England, leaving Khartoum on June 17th, last.

He rallied from the effects of the fever from time to time, but was compelled to enter Chalmers' Hospital, Edinburgh, in October. His death took place on Nov. 12th.

He was interred at the Dean Cemetery, Edinburgh, on Nov. 15th. The Gordon-Memorial College, Khartoum, Sir William Turner, Principal and Vice-Chancellor of the University, Mr. Wellcome and others were represented, and sent wreaths. A resolution of sympathy has been conveyed to the relatives from: the trustees of the Gordon Memorial College, and other expressions c. sympathy have been received from the Liverpool School of Tropical Medicine, etc., etc.

It is of interest to note that the first case of kala-azar found in Africa, except a case in Tunis, referred to by Laveran, was reported by Dr. Sheffield Neave, pathologist to the Wellcome Research Laboratories, Khartoum. Dr. Neave found the Leishman-Donovan body, the parasite of kala-azar, in the splenic blood of a patient in the Omdurman Civil Hospital. The discovery is noted by the Director in the Second Report of the Laboratories.

Dr. Pirrie presented a paper on his African expeditions at the last meeting of the British Association for the Advancement of Science, but was prevented from being present on account of his illness. He brought back a most valuable collection of objects of scientific interest.

At intervals during his illness he was engaged on his report to the Carnegie Institute and the Wellcome Research Laboratories, Khartoum, for which institutions he acted jointly in the important work he carried out in the Soudan.

### DEATH OF THE OLDEST PHYSICIAN IN CANADA.

DR. WILLIAM BAYARD, the oldest practising physician in the world, died on December 17th at his home in St. John, N.B., aged 94. Last August Dr. Bayard celebrated the seventieth anniversary of his entry into the medical profession. On that occasion Edinburgh University, of which he was the senior graduate, sent cordial greetings, and the Maritime Medical Association presented him with an address.

For 67 years Dr. Bayard has practised in St. John, of which he has always been one of the most prominent and highly honored citizens. The General Hospital, which he founded, is his chief monument. He was formerly President of the Canadian Medical Association.

Deer Park Sanatarium Not in Any Way Connected With Dr. Meyers' Private Hospital on Heath St.; Deer P.rk.—As there seems to be an impression in some quarters that Deer Park Sanatarium, Yonge Street North, and which recently failed, is connected with Dr. Meyers' Private Hospital. on Heath St., the profession should bear in mind that such is not, and never has been, the case. Dr. D. C. Meyers is well known to the profession as a neurologist, and has conducted for a number of years an institution of his own second to none in the Dominion. devoted to the treatment of nervous diseases.

# The Physician's Library.

#### **BOOK REVIEWS.**

The Internal Secretions and the Principles of Medicine. By CHAS. E. DETTE SAJOUS, M.D., Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society, the Academy of Natural Sciences of Philadelphia, etc.; Knight of the Legion of Honor and Officer of the Academy of France; Knight of the Order of Leopold of Belgium, etc.; formerly Lectures on Laryngology in Jefferson Medical College, and Professor of Laryngology and Dean of the Faculty in the Medico-Chirurgical College; formerly Professor of Anatomy and Physiology in the Wagner Institute of Science. Volume Second, with twenty-five illustrations. Philadelphia: F. A. Davis Co., Publishers. 1907.

It is safe to say that perhaps no more important book has been published in years than this, the second, volume of Dr. Sajous' work on "Internal Secretions." One has but to read a chapter or two to see that Dr. Sajous is now giving to the profession, and through it to the world, the result of untiring work in the laboratory on his own part and that of his collaborateurs as to the action of drugs on the various organs of the body. We trust the author will pardon us for quoting a paragraph from his introduction, and which we feel expresses in the best possible manner the object he had in presenting to the profession his work on "Internal Secretions ": "Skoda's dictum of several years' standing, 'that we can diagnose disease, describe it and get a grasp of it, but we dare not expect by any means to cure it,' has drifted along on the ripples of time, until in the year of our Lord 1907, the President of a prominent British society, Dr. A. H. Brampton, found it opportune to declare that, 'if any daring member has introduced a subject bearing on medical treatment, it has been with an apologetic air and humble micn, well knowing that if his remarks had any reference to the utility of drugs in the treatment of disease they would be subjected to good-humored banter and received by those sitting in the seat of the scornful with amused incredulity.' My aim now, as it was when 'Internal Secretions' was first projected, is to indicate what, to me at least, appears to be the main cause of the deplorable state of practical medicine of our day, and, if possible, to eliminate it." The author accounts for this "deplorable state" in part by the primary inability of

physiologists." to discern the nature of the function " which has been become disorganized and diseased. That up till the present there has been too much inclination on the part of physicians to guess at what they thought was the true condition of the affected organ cannot be gainsaid. Far too little is really known and understood regarding the functions of respiration and nutrition, yet how much depends upon the former in the successful treatment of pneumonia and tuberculosis. Until far more is understood regarding the problem of nutrition, what, for instance, can we expect to accomplish in the treatment of many gastro-intestinal disorders, such as infantile diarrhea, typhoid fever, etc.? Again, Dr. Sajous calls attention to the ignorance as to how the function of any organ is carried on. The author is careful not to appear over-harsh or ultra-critical in proving the all too many shortcomings of physiology, no criticism being made without careful and searching inquiry beforehand. He thinks that this is due to scientists having overlooked the functions of such bodies as the adrenals, the thyroid, the pituitary body and the leucocytes. It would take more -space than is at our disposal to review, as we would like, this splendid work. Its value cannot be estimated in dollars and cents. It is a gift to the scientific world of no less importance than the discovery of one-Jenner. By all means, order a copy of " Internal Secretions," if you don't purchase another book this winter.

W. A. Y.

Human Analomy, including Structure and Development, and Practical Considerations. By Thomas Dwight, M.D., LL.D., Parkman Professor of Anatomy in Harvard University; Carl A. Hamann, M.D., Professor of Anatomy, Western Reserve from dissection, by John C. Neisler, M.D., Professor of Anatomy, University of Toronto; Geo. A. Piersol, M.D., Sc.D., Professor of Anatomy, University of Pennsylvania; J. William White, M.D., Ph.D., LL.D.; John Rhea Barton, Professor of Surgery in the University of Pennsylvania; with 1,734 illustrations, of which 1,522 are original and largely from dissection, by John C. Neisler, M.D., Professor of Anatomy in the Medico-Chirurgical College. Edited by 'George A. Piersol. Philadelphia and London: J. B. Lippincotf Company.

The putting together of the various parts of this large work, the supervising, proof-reading, etc., and all the other work incidental to publishing such a large volume, has been an enormous There are nearly 3,000 pages, 1,734 illustrations, of which task. 1,522 are original and largely from dissections, by John C. Neisler, M.D. Few are able to understand and appreciate what an enormous task this is, and it is infinitely to the author's credit that he should secure his own cuts rather than go to other books

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for them. The artistic work of the dissections is of a very high order of merit. B. N. A. synonyms appear in special type, in association with the English-speaking terminology, a very sensible point. An important feature, and one of very great usefulness, is the amount of practical surgery associated with the various anatomical descriptions. This will appeal more particularly to the general practitioner, who has frequently to read up his anatomy, and in this book he not only obtains the anatomical knowledge, but has it applied to the very region he is particularly studying. The book is a splendid one and lacks nothing the student and practitioner requires, and contains all that should be found in a work of this character.

A Text-Book of the Practice of Medicine. By JAMES M. AN-DERS, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Eighth Revised Edition. Octavo of 1317 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, \$5.50 net; half morocco, \$7.00 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

Several editions of Dr. Anders' work on The Practice of Medicine have appeared during recent years, the present one (8th edition) being the fourth published since 1900. This work is one of the text-books recommended to students by the Medical Faculty of McGill University, Montreal, a fact which goes to show that it is recognized as a standard authority on that branch of medical science. Several important additions appear in the new work, viz., articles on Aplastic Anemia, Dementia Senilis, Intestinal Auto-intoxication, etc.

The bulk of the book has not been appreciably increased, the present one containing 1317 pages; the 4th edition contains 1297.

To a practitioner of medicine this work will be useful on account of the close study given to the art of diagnosis, and also because of the wealth of information about the dietetic, physiologic and medicinal treatment of disease. Practitioners interested in the study of the animal parasitic diseases will find the articles on Ankylostomiasis, Dracontiasis, and Trypanomiasis very full.

J. J. C.

# Satan Sanderson. By HALLIE ERMINIE RIVES. Toronto: McLeod & Allen. Cloth. Illustrated.

In the larger cities the theatres seem to be staging thrilling plays, something to be watched with absorbing, breathless interest, and just enough mystery to keep the interest until the end. Of this type is the story of Satan Sanderson. It is well written, and

the part that tells of the hero's stay in a mining town, and one scene in his early life as a clergyman, in which a game of cards is played on the holy altar table, is unusual enough to make it in very truth interesting reading. W. A. x.

Ulceration of the Cornea. By ANGUS MACNAR, B.A., M.B., Chief Clinical Assistant Royal London Ophthalmie Hospital. Len don: Baillière, Tindall and Cox. Toronto: J. A. Carveth & Co., Ltd. 1907. \$1.50.

Mr. MacNab has furnished a very interesting and instructive little book, one for which the increase in our knowledge of the bacteriological origin of corneal ulceration is responsible. The treatment of corneal ulceration certainly cannot be rational without definite knowledge as to its bacteriology, yet practically it is always undertaken, or at least begun, without that knowledge. Much of the classification or nomenclature of corneal ulcers has been very unsatisfactory and obscure. The application of bacteriology to the question will do much to clear up the question, and in many cases will lead to great advance in the practical methods of dealing with the disease condition itself. M.

Progressive Medicine. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by HOBART AMORY HARE, M.D., and R. H. M. LAUDIS, M.D. September 1, 1907. Philadelphia and New York: Lea Brothers and Company. Six dollars per annum.

The contents of this number comprise diseases of the thorax and its viscera, dermatology and syphilis, obstetries, and diseases of the nervous system. The opening chapter contains a review of the report of the Royal Commission on Human and Animal Tuberculosis. The Commissioners conclude that there can be no doubt but that in a certain number of cases the disease is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis, and there also can be no doubt that in the majority at least of these cases the bacillus is introduced by cow's milk.

Other interesting topics relate to asthma, hay fever, the pericardium, the heart and the arteries.

Cancer of the skin is discussed in the section on dermatology. It is stated that carcinomatous degeneration can be and frequently is prevented by the proper early treatment of other lesions. The X-ray treatment, though an effective therapeutic agent in some cases, is by many considered to be distinctly dangerous. Considerable attention is also given to syphilis, and the opinions of many authorities are quoted regarding the interesting, yet difficult, problems relating to this disease:

Edward P. Davis, M.D., in the chapter on obstetrics, reviews many live topics relating to pregnancy. He says the symptoms of early pregnancy are unreliable and often misleading. The toxemia of pregnancy is treated extensively. Of special importance are those patients who may be recognized as being in the precelamptic condition. This phase of the toxemia of pregnancy is most important because these patients are amenable to treatment, and celampsia may often be prevented. Placenta previa also received a fair share of attention. The writer prefers the use of clastic bags to the ordinary tampon in the treatment of placenta previa. Some of the other topics are septic infection and abortion, the cause of labor, and some causes of delayed labor.

The last chapter, devoted to diseases of the nervous system, opens with an ample discussion of brain tremor. This is followed by cerebral hemorrhage, hemiplegia tabes, paresis, poliomyelitis, meningitis, epilepsy, and many other important subjects.

The whole number is full of interest, and will be read with pleasure by the many contributors to this valuable journal.

A. E.

# The Medical Record Visiting List or Physician's Diary for 1908. New Revised Edition. New York: Wm. Wood & Co., Medical Publishers.

This year's "Medical Record Visiting List" is largely similar to that of 1907, with the exception of a few changes in the matter composing the preface. The list of remedies showing the maximum dosage in both apothecaries and decimal systems, and the indication of such as are official in the United States will prove exceedingly useful, as also the Obstetric Calendar and the Poisons and Antidotes section.

Clinical Treatises and the Symptomalology and Diagnosis of Disorders of Respiration and Circulation. By PROF. EDMUND VON NEUSSER, M.D., Professor of the Second Medical Clinic, Vienna; Associate Editor Nothnagel's Practice of Medicine. Authorized English translation by ANDREW MACFARLANE, M.D., Professor of Medical Jurisprudence and Physical Diagnosis, Albany Medical College, Attending Physician to St. Peter's and Child's Hospital, and Albany Hospital for Incurables. Part I. Dyspnea and Cyanosis. New York: E. B. Treat Company. 1907.

This work is one of a series of monographs on the disorders of respiration and circulation. It is clinical in character, and is worthy of study by persons who wish to understand the often hidden causes which produce these symptoms:—lesions of the respiratory, or circulatory, or vascular organs,—neurosis of the heart, gastro-intestinal disorders, diseases due to poisons or drugs,

and general diseases. There is a useful chapter on the therapy of dyspnea. The translation has been well done. J. J. C.

Pharmacology and Therapeutics. By REYNOLD WEBR WILCOX, M.A., M.D., LL.D., Professor of Medicine at the New York Post-graduate Medical School and Hospital, Consulting Physician to the Nassau Hospital, Visiting Physician to St. Mark's Hospital, ex-President of the American Therapeutic Society, Fellow of the American Academy of Medicine, Member of the American Medical Association, Vice-Chairman of the Revision Committee of the United States Pharmacopeia, etc. Scventh Edition, revised, with index of Symptoms and Diseases. Philadelphia: P. Blakiston's Sons & Co., 1012 Walnut Street. 1907.

This is undoubtedly one of the very best works on Pharmacology and Therapeutics published. The great experience of the author has enabled him to keep abreast of the times in the revision of this book. An effort has been made to present the latest views of the highest authorities in these departments and to render the book as practically useful as possible by full details regarding treatment, thus producing a most complete presentation in logical order of the whole subject of Materia Medica and Therapeutics.

The Reduction of Cancer. By The Hox. Rollo Russell. Published by Longmans, Green & Co., London, New York, Bombay, and Calcutta. Price, 1s. 6d.

"A little knowledge is a dangerous thing," and yet if the Honorable Rollo Russell had not written "The Reduction of Cancer" we would not have had the entertainment of reading this screechingly ludicrous publication.

To eradicate disease in India he would have the natives adopt civilized methods, while to eradicate it in England he would have the Britisher adopt the uncivilized life of the Indian native. A most beautiful rule, for it works both ways. The tone sounds wonderfully like that that howls against vaccination and vivisection, but the writer appears to be merely a humble vegetarian, with an especial antipathy to the unfortunate pig. He says, "We daintily polish the outside dish and recklessly swallow the filth of beasts." He attributes the common cause of cancer to certain articles of diet: "these are in the main, tea, coffee, some kinds of beer, animal flesh and app\_\_ently several stimulants and narcotics, including tobacco."

In another clause he tells us that "human cancer is often started by the depressing, toxicating effect of worry. So in animals toxication must often be caused by the fearful distress, wor-

ries and prolonged agonies undergone by cattle in transport before slaughter." Wonderfully sudden development, when it can arise between the cattle car and the slaughter-house! Oh, you funny man, please write some more; it reads like a story-book of an hysterical writer!

He tells us that "In Canada, where the amount of flesh, tea, and coffee is more moderate, the rate is lower than in Australia." We cannot help but wonder if he ever saw a lumberjack eat. The writer has! Once in a camp with six others he saw 105 pounds of beef vanish in three days, and the writer was responsible for not more than  $\frac{1}{2}$  pound a day. If he could only see our farm laborer or lumberjack put away beef, pork and the like, as well as the good (?) old boiled tea, he would not attribute our freedom from cancer to our abstinence from tea and meat.

It is only too true that much may be said in favor of the simple life, but we fear that the author, if he is not careful, may contract cancer from the t\_xication resulting from the immoderate use of the pen. s.

The Practical Medicine Series. The Eye, Ear, Nose and Throat. Edited by CASEY A. WOOD, M.D.; A. H. ANDREWS, M.D.; G. P. HEAD, M.D. Series 1907.

No matter how extensively the practitioner may read, every year brings forth advances and new ideas in medicine which are sure to escape his notice. To keep track of and keep pace with these advances, one must have some such work as this. This series, published in ten volumes, has the advantage of being published in a handy, compact size, for one is often daunted by the size and bulk of the ordinary annual

Some Points in the Surgery of the Brain and Its Membranes. By CHARLES A. BALLANCE, M.V.O., M.S., F.R.C.S., Surgeon to St. Thomas' Hospital and to the National Hospital for the Paralyzed and Epileptic, Queen's Square, etc.; with illustrations. London: Macmillan & Co., Limited. New York: The Macmillan Co. 1907.

This volume of 396 pages is profusely illustrated. It is an able presentation of a complex and difficult subject. The author has distinguished himself in the particular field of work with which the book deals and this most recent contribution to the literature of Brain Surgery is one of great value. The material presented in the volume was prepared for the Lettsomian Lectures of the Medical Society of London for 1906. A large amount of clinical material is recorded in a manner which will be particularly useful to the student who wishes to investigate the difficult problems of brain surgery.

The surgery of the Cerebral Membranes includes such subjects as Sub-dural Hemorrhage in Infants and Adults, Traumatic Encephalocele, The Pathology of Meningeal Infections, Sub-dural and Sub-arachnoid Suppuration, The Varieties of Meningitis, Tuberculous Meningitis and Hydrocephalus Interna. The articles on Brain Abscess and Brain Tumors are most interesting and instructive. The views of the author are supported by descriptions of clinical and pathological findings, which are arranged and presented in a systematic fashion, so that the theories advanced are shown to be the logical conclusions arrived at from the study of a large amount of material which has been accumulated during an unusually wide experience in brain surgery.

The work will be found particularly helpful as an aid to the diagnosis of the various brain affections which come within the province of the surgeon. The difficult subject of the localization of brain tumors is treated in a masterly manner and this section will be welcomed by those who are confronted with the difficult problems which such cases present in practice. The book will be much appreciated by the profession as an able contribution from a distinguished author.

Text-Book of Organic Chemistry for Medical Students. By G. v. BUNGE, Professor of Physiological Chemistry in the University of Basel. Translated by R. H. ADERS PLIMMER, D.Sc. (Lond.), Assistant Professor of Chemistry and Fellow of University College (London.) London: Longmans, Green & Co., 39 Paternoster Row. New York, Bombay and Calcutta. 1907.

This work has been written with a view of providing the medical student with a book which he can use as a guide to investigations which have been already elucidated and put in such an order that he can the more easily make progress in this rapidlydeveloping science. The student will undoubtedly find this of the greatest assistance in the pursuance of his studies on this subject.

Saunders' Revised Catalogue.—So great has been the demand that W. B. Saunders Company, the medical publishers of Philadelphia and London, have found it necessary to issue another revised edition of their illustrated catalogue of medical and surgical books. In looking through the copy we have received, we find that since the issuance of the last edition six months ago, the publishers have placed on the market some twenty-five new books and new editions—truly an indication of publishing activity. 'The colored insert plate from Kcen's new Surgery, which enhanced the

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value of the former edition, has been replaced by a new one from the second volume of the same work, and this alone gives the catalogue a real value.  $\Lambda$  copy will be sent to any physician upon request,

Petric Inflammations in the Female, being the Ingleby Lectures delivered at the University, Birmingham, May 9th and 16th, 1907. By THOMAS WILSON, M.D. (Lond.), M.Uh. (Birm.), F.R.C.S. (Eng.), Obstetric Officer to the General Hospital, Birmingham, Physician to In-Patients at the Birmingham Maternity, etc., etc. Bristol: John Wright & Co. London: Simplin, Marshall, Hamilton, Kent & Co., Ltd. 1907.

In the Ingleby lectures, the author, Dr. Wilson, Birmingham, treats of pelvic inflammations in the female, largely from the star dpoint of his own practical observations.

Parturition and gonorrhea are shown to be the chief eauses of the introduction of the pathogenic organisms, from which inflammations in the female privic organs arise. The lecturer covers a great deal of ground in these lectures. What he says on the ctiology, pathology and treatment of these diseases will commend itself to the judgment of experienced physicians, and should throw a strong light on the pathway of the beginner.

American gynecologists, such as Hirst and Penrose, have given in their published works opinions similar to those expressed in Dr. Wilson's lectures. J. J. C.

# Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. VI. Lumbar Region-Nel 'rotomy. Edinburgh and London: Wm. Green & Sons.

Volu as VI. of this excellent work reached us a few weeks ago, and its perusal has afforded us a great deal of pleasure, as well as in truction. The most extensive article in the volume is that dealing with diseases of the lungs. It covers about seventy pages and makes in itself a good-sized book. It is from the pens of three wellknown writers, Drs. R. W. Philip, S. H. Haber-hon, and R. A. Fleming. It is subdivided into several parts, and deals with tuberculosis, pulmonary fibrosis, pneumokoniosis, gangrene, emphysema, vascular disorders, syphilis, abscess and parasitic affections. This section is most complete, and is alone worth the price of the volume.

Dr. H. J. Stiles devoces almost fifty pages to diseases of the mammary giand. Other subjects discussed at more or less length include papers on disorders of menstruation, mental deficiency, mumps, nephritis, forensic medicine, injuries and diseases of the month and jaws, lupus, lunacy, and about thirty other equally interesting topics.

Lateral Curvature of the Spine and Round Shoulders. By ROBERT E. LOVETT, M.D., Boston. Philadelphia: P. Blakiston's Sons & Co. Canadian Agents: Chandler, Ingram & Bell, Toronto.

Lovett's work on lateral curvature is the most scientific and accurate account of this most complex deformity which has appeared in English.

The pathological anatomy is most difficult, but it has been well elucidated by the author and the reader is greatly aided by the numerous drawings and radiographs.

The chapter on Etiology will convince one that the causes are very numerous and that while many of them are not removable,. yet preventive treatment should play an important part and that the family physician can be of most service in this domain.

Curvatures have a very natural and proper classification asbeing "postural" or "structural." The treatment for the first variety is found in substituting a correct attitude for a faulty one; first, by removing causes and afterward by persistently performing certain gymnastic exercises. In the second variety force must be employed in some way so as to render the spine supple before gymnastics can be of much service.

The author's teaching may be summed up by saying that he advocates machine pressure for forcibly correcting or lessening the resistent curve, the maintenance of the improved attitude by plaster-of-Paris fixation dressings, and afterward employing gymnastics.

Those who wish to have at hand the best authority in English upon this subject should procure Lovett's work on Scoliosis.

B. E. M.

The Development of the Human Body. By J. PLAYFAIR MCMURRICH, A.M., Ph.D., Professor of Anatomy, University of Toronto. Third Edition, with 257 illustrations. Price, \$3.00. Philadelphia: P. Blakiston, Sons and Company, Publishers.

To intelligently understand the functions of the various organs of the human body, a study of their development is essential, or to fully comprehend the cause and development of certain cysts and other pathological conditions a knowledge of their embryology is most important. Perhaps ovaries now sacrificed by would-be surgeons might be saved if they but knew the normal appearance of a corpus luteum undergoing retrogression. It would be well, too, for the general practitioner to make a more careful study of his centres of ossification and general bone development in order that he might gain a more comprehensive idea of the growth of bone, and from it learn to treat his fractures with a greater scien-

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tific knowledge. To practitioners, therefore, we heartily recommend McMurrich's Study of Embryology, and to students studying medicine it will prove a valuable text-book. s.

Kirke's Handbook of Physiology. Revised and Rewritten. By CHARLES WILSON GREENE, A.M., Ph.D., Professor of Physiology and Pharmacology, University of Missouri. Sixth American Revision, with five hundred and seven illustrations, including many in colors. New York: William Wood and Company. 1907.

In this edition the amount of space formerly devoted to anatomy has been greatly reduced, while that occupied with subjects which deal purely with physiology has been increased. The text has been largely rewritten and improved in many ways. At the end of the chapters there has been introduced full and clear directions for practical laboratory work, which will be very helpful to students who are doing work in practical physiology. Many new illustrations of physiological experiments have also been introduced, and these simplify the text and make it easily understood. This is a handy and useful work on physiology for students and practitioners.

Primary Nursing Technique, for First-year Pupil Nurses. By ISABEL MCISAAC, graduate of the Illinois Training School for Nurses, formerly Superintendent of the Illinois Training School for Nurses, Honorary Member of the British Matrons' Council, Charter Member of the Nurses Associated Alumnae of the United States, etc., etc. New York: The Macmillan Co. Toronto: The Macmillan Co. of Canada, Limited, 27 Richmond Street W. 1907.

This is a thoroughly honest book for nurses starting on their course of study. It is evidently written with the one object in view, viz., to inculcate in the minds of its readers the fact that an accurate knowledge of the human body is the first essential to successful mursing. The authoress also urges thoroughness and patience as the sine qua non of the nurse. The book is clear in diction and should find a large sale.

The Weavers. By SIR GILBERT PARKER. Toronto: The Copp. Clark Company, Limited.

All Canadians, perhaps, regret that Gilbert Parker has forsaken his first love and apparently ceased to write the tales of life in "Lower Canada." Those early stories were so charming and had for many readers a fascination all their own.

His new story, "The Weavers," lac'ts the old, forceful simplicity; it is too ornate and fairly revels in melodrama. Egypt, its life of intrigue, ceremony and servility, crime, war, and over all, a strange love and a "Quaker" lover, perhaps a century plant in the book garden of heroes, for his like has not bloomed in a

hundred years. A Manual of the Practice of Medicine. By A. A. STEVENS, A.M., M.D., Professor of Therapoutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Eighth Edition Revised. 12mo of 558 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Flexible leather, \$2.50 net. Canadian agents: J. A. Carveth

& Co., Ltd:, Toronto.

Dr. Stevens' Manual of the Practice of Medicine is, as the author says, intended especially for the use of students. No doubt students, particularly when preparing for examination, will find it very useful. It is a convenient work for the practitioner as.well. A number of good formulæ appear in the different – articles.

Diseases of the skin and its appendages are included. The style is laconic but lucid; a very meritorious work J. J. C.

Manual of Physiological Chemistry. By ELIAS H. BARTLEY, B.S., M.D., Professor of Chemistry, Toxicology, and Pediatrics in the Long Island College Hospital. Third edition, revised and enlarged, with 51 illustrations. Philadelphia: P. Blakiston, Sons & Co., 1012 Walnut St. 1907. \$1.00 net.

This edition has been thoroughly revised by the author. Some of its chapters have been entirely rewritten and much new matter has been added, notably in those parts which deal with the examination of blood and feces.

A considerable number of new illustrations and methods have also been added, together with explanatory notes which describe the clinical significance of results obtained in the laboratory.

This is a handy little volume of two hundred pages, and it will be appreciated by students in clinical chemistry.

A Text-Book of Ophthalmic Operations. By HAROLD GRIMSDALE,

M.B., F.R.C.S., Ophthalmic Surgeon to St. George's Hospital; Surgeon to Royal Westminster Ophthalmic Hospital; and ELMORE BREWERTON, F.R.C.S., Surgeon to Royal Westminster Hospital. London: Hegan, Paul, Trench, Trühner & Co. 1907.

Treatises in English on ophthalmic operations are few and far between. Czermal's encyclopedic work will always be the resort of those who read German, or Terrien of those who read French. Grimsdale's book is hardly of the same order as these, being, as one expects to find in an English work, much shorter.

It we remember aright, Mr. Grimsdale paved the way to this work by a smaller work on ophthalmic operations as performed on dogs and on the cadaver.

All the usual and many of the unusual ophthalmic operations are described, and references are given in a bibliography at the end of each chapter, to the original authorities, a most valuable feature indeed. The illustrations are rather in the diagrammatic order—perhaps the more useful on that very account.

#### J. M. M.

Anatomy of the Brain and Spinal Cord, with Special Reference to Mechanism and Function; for Students and Practitioners. By HARRIS E. SANTEE, M.D., Ph.D., Professor of Anatomy in the College of Physicians and Surgeons, Medical Department, University of Illinois; Professor of Anatomy in Jenner Medical College, Chicago. Fourth Edition, revised and enlarged, with 128 illustrations, 33 of which are printed in colors. Philadelphia: P. Blakiston's Sons & Co., 1012 Walnut Street. 453 pages. 1907.

In this work will be found an excellent presentation of our present knowledge of the anatomy of the central nervous system. The subject is dealt with in a fashion which will prove of especial value to the student. The illustrations are unusually good and largely original. The B. N. A. nomenclature is adhered to and this will increase the value of the work, as the coming generation of students will be familiar with no other. We commend the book as a valuable contribution to anatomical literature.

A. P.

 A Manual of the Diagnosis and Treatment of the Diseases of the Eye. By EDWARD JACKSON, M.D., Professor of Ophthalmology in the University of Colorado. Second revised edition. 12mo of 615 pages, with 182 text-illustrations and 2 colored plates. Philadelphia and London: W. B. Saunders Company 1907. Cloth, \$2.50 net. To:onto: J. A. Carveth.

This second cdition of Jackson's "Diseases of the Eye" appears with not very much increase in size, but yet with a good deal of change in matter. One expects from the author of an ophthalmic year-book that his work will above all things be up-todate. This it is, but Jackson is not carried away by the temporary enthusiasm of ophthalmology; the wheat has been gathered and the chaff cast away. One wonders how so much is got into the book even such unusual conditions as myasthenia gravis and developmental alexia are treated of.

This text-book has always been such a favorite of mine that I take it for granted that it will be the same with all other readers.

J. M.

A Text-Book of Physiology. By ISAAC OTT, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia; ex-Fellow in Biology, Johns Hopkins University; Consulting Neurologist, Norristown Asylum, Pa.; ex-President of the American Neurological Association, etc. Second edition revised and enlarged. Illustrated with 393 half-tone and other engravings, many in colors. Philadelphia: F. A. Davis Co., publishers. 1907.

A reader of the first edition of Dr. Ott's work on physiology would hardly recognize his book now, so much has he enlarged it. There must be not less than 200 pages more matter in the second edition than in its predecessor. This is necessary in view of the rapid advances made in this study during the past few years. The book includes between 250 and 300 illustrations, the majority of which are original. The writer has had the greatest pleasurc in going through this volume, perhaps more especially the chapters devoted to Electro-Physiology and Reproduction. There is every reason to think that Dr. Ott's Text-Book of Physiology will become a recognized authority on the subject.

A Text-Book of Clinical Anatomy. For Students and Practitioners. By DANIEL N. EISENDRATH, A.B., M.D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons), Chicago. Second Revised Edition. Octavo of 535 pages, with 153 illustrations, a number in colors. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, \$5.00 net; half morocco, \$6.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

In the teaching of anatomy, as in many other branches of medical education, very considerable advance has been made during the past twenty years or more. Anatomy is taught to-day in a manner not even thought of twenty-three years ago, as can well be remembered by the writer of this review. The developments in surgical practice alone necessitate a far more careful and detailed study of human anatomy than was thought to be essential a quarter of a century back. Nowadays, a study of the fundamental subjects must form the basis of a successful career in medicine, and regional or typographic anatomy takes the place in a studen's career, of descriptive anatomy, so-called. The study hour after hour in memorizing the brachial plexus, the abdominal circulation, the interior anatomy of the brain, is useless without a resultant ability to apply such knowledge to clinical work. For those reasons, Eisendrath's Text-Book of Clinical Anatomy, in its revised edition, will be found immensely helpful to the student in aiding him so to apply his knowledge that when he reaches

the bedside and the operating room, he will reap the benefit of his work where and when most needed.

Diseases of the Genito-Urinary Organs and the Kidney. By ROBERT H. GREENE, M.D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and HARLOW BROOKS, M.D., Assistant Professor of Pathology, University and Bellevue Hospital Medical School. Octavo of 536 pages, profusely illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, \$5.00 net; half morocco, \$6.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

The authors announce that, in presenting this volume, they have done so "from the standpoint of the general practitioner and surgeon." That fact is borne out by a perusal of the different chapters, and we would recommend authors of books on special subjects to "go and do likewise." The book is first and foremost practical. The different diseased conditions of the uro-genital tract are considered fully, each chapter being yet free from too much detail, the authors having wisely not attempted to make their book complete, but have confined themselves to a consideration of those conditions with which the general practitioner is least familiar. The book, being the product of a physician and surgeon, equal attention is devoted to the medical and surgical aspects of the different diseases.

A Manual of Personal Hygienc. Proper Living upon a Physiologic Basis. By Eminent Specialists. Edited by WALTER L. PYLE, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Third revised edition. 12mo of 451 pages, illustrated. Philadelphia and London: W. B. Sanuders Company. 1907. Cloth, \$1.50 net. Canadian agents: J. A. Carveth & Co., Toronto, Ont.

Dr. Pyle is to be congratulated on having produced a work which any medical man may, without the least hesitation, recommend to his patients and lay friends. Unlike most books written on personal hygiene for the general public, this one is thoroughly scientific and up-to-date. We are not surprised at this when we note that each section of the work is written by a well-known specialist in that particular subject, e.g., Dr. Stockton, of Buffalo, writes the chapter on hygiene of digestive system; Dr. G. H. Fox, of New York, on the skin and its appendages; Dr. E. Fletcher Ingals, of Chicagó, on the vocal and respiratory apparatus; Dr. A. B. Randall, of Philadelphia, on the ear; Dr. Pyle, of Philadelphia, on the eye; Dr. Coventry, of Boston, on the nervous system; Dr. Stewart, of Chicago, on physical exercise; and Dr. Bergen, of Philadelphia, on domestic hygiene. Each division of the work is as full as one could desire, and where necessary to illustrate the text good cuts are used.

There is an appendix which treats of the pulse, temperature, respiration, baths, massage, accidents, emergencies and poisoning, with a table of poisons and antidotes. There is a very useful glossary and a good index. W. J. W.

A Treatise on Liseases of the Skin. For the use of advanced Students and Practitioners. By HENRY W. STELWAGON, M.D., Ph.D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Fifth Edition, Revised. Handsome octavo of 1150 pages, with 267 text-illustrations, and 34 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, \$6.00 net; half morocco, \$7.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

We think that we have once before alluded to the fact that of dermatology, more than in any other branch of medicine, there is altogether too much lack of knowledge among medical practitioners. This is doubtless due to the fact that up till some years ago practically no special course of lectures on skin diseases was given at our schools of medicine and universities. This fact, we think, must have been recognized by Dr. Stelwagon, in writing the fifth edition of his now well-known Treatise on Diseases of the He has presented the practical part of his subject in such Skin. a manner as to make his book readable to the general practitioner, skin diseases at the best not being the most interesting subject for That such is the fact is perhaps the best possible recomstudy. mendation we can give his book, and should alone ensure a large D. K. S. sale.

Manual of Anatomy. Systematic and Practical, including Embryology. By A. M. BUCHANAN, M.A., M.D., C.M., F.F.P.S. Glas.; Professor of Anatomy in Anderson's College, Glasgow. Vol. II., Abdomen, Thorax, Head and Neck, Nervous System, Organs of Special Sense, and an Appendix containing the Bole Nomenclature and a Glossary. London: Bailliere, Tindall & Cox. 1907. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Price, \$3.25. Two volumes, \$6.00.

This handy volume is well written and beautifully illustrated. Each section is divided into topics and all of these are carefully and accurately described.

A guide to the dissection of each part is placed at the end of every section, and this will prove to be a great aid in the study of anatomy. A large number of the illustrations are colored, and the coloring in almost all cases is excellent. This is sure to become a popular text-book with students. A. E.