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VALEDICTORY ADDRESS TO THE GRADUATES IN MEDICINE,

Delivered at the Annual Medical Convocation of the University of Bishop's College, 8th April, 1896, by A. ARTHMAN BRUERE, M.D.EDIN., Professor of Physiology and Histology.

LADY AND GENTLEMEN,

I have been chosen by my colleagues to address a few parting words of advice and of encouragement to you who are about to assume the duties and responsibilities of the practice of medicine. I deem it a privilege to address you on their behalf.

You have joined the company of the brave and unselfish men and women, who freely risk all that is dearest, even life itself, in the performance of their daily work; and it is to me a pleasing duty to welcome you into the ranks of practitioners of the healing art. For four years, your teachers have done their utmost to assist you in mastering the several branches of medical science. Knowing how rough and rugged is the path of medical education, they have endeavored to guide your footsteps and help you to meet with a cheerful spirit the difficulties of the way. To-day they feel proud to bear testimony to your mental worth. They rejoice to be able to say that you have employed your time, and availed yourselves of your opportunities, to the best advantage, and that you are deserving of the degrees conferred upon you.

The title of Doctor in Medicine not only expresses the possession by the physician of certain items of professional knowledge, but it also implies the possession of a well-trained mind, furnished with every intellectual means to get the most out of professional life. A doctor is expected to be endowed with intellectual powers of no mean order. He or she must be an educated person in order to rise above mediocrity in the medical profession. The value to the physician of a liberal education

is now considered so essential, that many universities do not confer a medical degree unless the candidate has previously graduated in Arts. Permit me to urge upon you the necessity of improving your general education, if your early training has been defective; for among the educated public, a physician who is learned and cultured has a better chance of achieving professional success than one who is illiterate, and who, by his ignorance of subjects not strictly pertaining to medicine, exposes himself to ridicule. In alluding to a sound general education as an element of success in the medical profession, I have no intention to disparage your literary and scientific attainments. I have taken the liberty to address you on the subject, because I would have you speak a word of counsel to intending medical students, should you have the opportunity to do so. Plead for the cultivation on their part of scientific habits of thought, and advise them to undergo a thorough, training in Arts prior to matriculation in a school of medicine. A large percentage of medical students are, in consequence of their imperfect education, unfit to cope with the exigencies of medical training; and the difficulty they experience in grasping the significance of scientific truths, and in clearly expressing their thoughts, is the secret of their repeated failures to pass professional examinations.

The medical man should aim at being scientific in his methods of practice and in his habits of thought. He should be able to follow, be it in a humble way, the leaders of medical science in their application of scientific methods to the service of suffering humanity. He should be in a position to appreciate their labors if not actually ambitious to emulate them. He should be capable of making his diagnosis with judgment, basing his ultimate conclusions on well established symptoms of disease. The degree that you possess is a guarantee that you have the qualifications for which I plead; and I am confident that you are qualified by your training to undertake your life's work, and to acquit yourselves therein with distinction. Your teachers will nevertheless expect you to continue the work of medical education begun at Bishop's College. We would have you study the pages of the best medical and surgical works. We would have you read the best medical journals, in order that you may keep abreast of the progress of medical science. But beware of making mere bookworms of yourselves. The physician's duty is to improve his art He may attain his object by making exact clinical observations, by

gathering facts related to disease and carefully comparing and correlating them, and having ascertained the correctness of his conclusions by well conducted experiments, publishing his results for the advancement of his profession. And let me say here that the clincial ward, and the out-patient room, are as much places for scientific study as is the laboratory of the physiologist or of the pathologist. All unusual phenomena you may chance to observe at the bedside should be made the subject of scientific inquiry, and the theories suggested by your observations confirmed or disproved by experiments. Let us, however, warn you against publishing results of investigations that are incomplete, merely for the sake of contributing an article or a paper to a medical journal. To the investigator the old maxim "hasten slowly" should be a golden rule; and his researches should be conducted without hurry and with the greatest care. In the interest of the progress of medical science, the physician should publish no theories, arising from his clinical observations, as facts; he should make known to the medical world no results of the accuracy of which he is himself doubtful. Although we would advise you to publish the results of honest work, we cannot too strongly deprecate the unfortunate tendency on the part of many medical men to write papers when they have nothing in particular to communicate—papers which, for lack of original ideas, and the clumsy arrangement of borrowed thoughts, may fairly be considered as samples of literary patchwork.

Now that you have obtained your degrees in medicine, the very serious question arises of what you are to do with your laboriously acquired knowledge. Advice on this head will depend on your circumstances, pecuniary and otherwise. If you possess some means, and can afford to wait a year or two before settling down, we should recommend you to spend a year at least in some resident appointment in an hospital; or if you have already enjoyed the clinical opportunities of an hospital appointment, to spend a year or more in the medical schools of Europe. When you come to settle down, you will have the alternative of beginning practice in a city or town, or in the country. General practice, either in town or country, must be the work of the majority of medical men and women, and no branch of medical work is more honorable or affords better opportunities for the exercise of the highest qualities of heart and mind.

Nowadays, the tendency on the part of some young graduates

in medicine is to devote their energies and time to the mastering of special branches of medicine and surgery, thereby qualifying themselves to practise as consultants or specialists. While one cannot but admit that concentration of thought and work on any branch of medicine or surgery conduces to greater efficiency in that branch, we would advise recent graduates to rather aim at acquiring a sound knowledge of all the branches of medical science in the first years of practice. By so doing they will discover their aptitude for a special branch of medical science, and should they eventually decide on adopting a specialty, they will have acquired that general experience of diseases which will materially influence the quality of their special work.

Your selection of a suitable field for practice must be made with the greatest care. You will be guided in your ultimate choice of a suitable location by personal considerations of health, character, professional ability and pecuniary resources, by the professional competition likely to be encountered, by the prosperity of the community, and by the probability of a constant increase in the population of the town or rural district. Yet, after you have settled down in what seems to be a suitable location, chosen with the due exercise of caution and forethought, circumstances may arise which will unfavorably influence your chances of professional success. The growth of practice may in consequence be slow, and your work ill-remunerated. The young physician, thus circumstanced, must not allow the slow growth of medical reputation and practice to discourage him. Should he be fortunate in possessing an independent income, sufficient for his needs, he will act wisely if he persists in giving the location of his choice a fair trial, with the determination of commanding success by the faithful and thorough performance of his work. Let him have recourse to every legitimate means of making known his professional worth, and if he be truly competent, his neighbors will after a time recognize his merit. In endeavoring to secure professional success, you should be constantly on the watch for opportunities, and be prepared to avail yourselves of them when they arise, for in this often lies the secret of success.

> "There is a tide in the affairs of men,
> Which, taken at the flood, leads on to fortune;
> Omitted, all the voyage of their life
> Is bound in shallows and in miseries."

It is in the judgment and ability shown in taking the tide

when at the flood, that the successful man mainly differs from the unsuccessful.

Figure, address, polish, management are elements of success in the medical profession. The public, unable to fathom the depth of a physician's special knowledge, are often influenced in selecting him for the treatment of disease by mere appearances. There is truth in the adage "nothing succeeds like success," and, I may add, success in medical practice. Although you may be disinclined to credit the statement, the public are often guided in the choice of a physician by considerations of dress. They prefer to employ a well dressed practitioner to one who is slovenly attired, although the latter may be the more skillful of the two. You will therefore have to humor the public in the matter of dress, if you wish to become popular.

Let us suppose that by your honest endeavor to succeed, by the conscientious performance of your work, by your sympathy with the sick public, by your courage in battling with disease, you have succeeded in building up a good and reliable practice, and in gaining the esteem of the public. The maintenance of yourselves in public favor will in a measure depend on your relations with your professional brethren, and on the manner in which you dispose of the trust reposed in you by the public.

In your intercourse with your professional brethren every acknowledged rule of etiquette should be strictly observed. Some unprincipled practitioners, in their anxiety to make business, have recourse to doubtful expedients in order to supersede fellow-physicians in the treatment of patients under their care. Never by any means act unfairly towards a professional brother or sister, and by your indiscrete words and actions take a mean advantage of him or her.

When called in consultation, carefully refrain from disparaging the methods of treatment of the regular medical attendant, but rather defend his management of the case if you can honestly do so. The habit of some consultants, of conversing with members of the family about particulars of a case to which they have been called, and in the absence of the family physician, is to be strongly deprecated.

In your dealings with the deserving poor, let no consideration of ill-paid fees deter you from placing the benefit of your experience and skill at their service. Never refuse, except for valid reasons, to visit the lonely abode of poverty and "learnt he luxury of doing

good." If you live by the public you must also live for the public. It is incumbent on every practitioner of medicine to educate the people to pay due regard to the claims of hygiene. Here you have an opportunity to aspire to a reputation of disinterestedness. And although the due observance by the public of the laws of health must greatly conduce to the lessening of disease, and the consequent reduction of your income, you should bear in mind that you owe the public certain duties which, in proportion to the trust reposed in you, are not measurable by fee or reward.

If you be successful in establishing yourselves in fair practice, you might be tempted to work without relaxation from year to year, lest in your absence you should lose some of your best paying patients. The physician should, in justice to himself, take at least a month's holidays every year; for broken rest, tasteless meals, anxieties shorten life, and if the daily routine and drudgery of practice be uninterrupted, he must sooner or later suffer from impaired health, which will shorten the period of his usefulness.

You are leaving the University at a time when its Medical Faculty is about to enter on a new era in its history. It cannot be that you are wholly ignorant of the extent to which its educational work has been hampered, not only by lack of endowment, but also by the relentless opposition to its advancement evinced by many in this community. It is now more than likely that the recent affiliation of the Dental College of the Province of Quebec with the University of Bishop's College will, by securing the good will of the leading members of the Dental Profession in this city of Montreal, and by increasing the number of students attending special departments of our medical school, materially assist in promoting the prosperity of the Medical Faculty of the University.

It is our earnest hope that in your future career you will be true to yourselves and faithful to the interests of the medical profession. Your devotion to duty should be ideal. It is not always easy to rise to the highest level of professional duty, but it is desirable that young graduates should entertain an ideal of duty and endeavor to attain it.

In your dealings with members of the medical profession, put aside all petty jealousies and personal rivalries, but be friendly with and just to all co-workers in thefield of medicine, irrespective of their nationality and of their university training; for medical science is of no special university, language or nationality. We would have you do your utmost to ennoble your profession, and,

by your noble and unselfish deeds, by your single devotion to your ideal of duty, by your honest endeavor to enlarge the boundaries of medical science, do honor to yourselves and to your Alma Mater.

On this memorable day on which you enter upon the campaign against vice, ignorance and disease, let it be your firm resolve not to make your noble office subservient to any ignoble end; but let each of you say as did Hippocrates of old, "With purity and with holiness I will pass my life and practise my art."

THE CAUSES OF FAILURE TO OBTAIN GOOD RESULTS FROM OPERATIONS ON THE CERVIX UTERI.

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S, Eng.
Fellow of the American Gynæcological Society, Gynæcologist to the Montreal Dispensary and to the Samaritan Hospital; Surgeon to the Western Hospital, Professor of Clinical Gynæcology in Bishop's University.

Having had an experience of over three hundred cases of operations on the cervix uteri and having been present at or taken part in a hundred more which were performed by other operators, it is impossible for me to shut my eyes to the fact that success does not follow it immediately in all cases, and in some cases not at all. I must even go further and admit what some of the opponents of the operation claim, that a few of the patients are made decidedly worse by it. But there are reasons for this as for everything else, and I shall now endeavor to point out the causes for these failures. I shall do so the more freely and frankly because some of the failures I have met with occurred among my own patients who were operated on during my earlier and less experienced years. The operation for repair of a lacerated cervix seems at first sight a simple and easy one, but I have come to the conclusion that to do a bad case properly is one of the most difficult of minor gynæcological operations. I have seen the great Emmett, the inventor of it, spend the best part of an hour with the best of assistance in performing it on what an inexperienced operator would have called an easy case, hardly bad enough to operate on at all; it was one of those cases of deep bilateral laceration which had healed by granulation, the angle between the everted lips having been filled in with cicatricial tissue, while the red ciliated epithelium of the mucous membrane of the cervical canal had been destroyed by applications of nitrate

of silver until it had been entirely replaced by pavement epithelium and scar tissue. An inexperienced operator would have said in this case that there was no laceration at all, or at the most he would have denuded the mucous membrane on each lip and stitched it neatly over the immense wedges of cicatricial tissue. Emmet on the contrary worked away with tenaculum and scissors for more than half an hour, digging out piece after piece of scar tissue hard and white and fibrous, being guided by his sense of touch, until when he was ready to sew it up, the original tear had been reproduced right up to the internal os, and the long soft lips were brought together to unite by primary union. The nerve filaments of the great sympathetic which had been irritated for many years were placed at rest at last.

When properly performed on women whose generative organs are otherwise free from disease, the repair of the lacerated cervix is one of the most wonderful and most satisfactory in its results. I confess that at one time I myself thought that its value was overestimated, and that a moderate laceration had better be left alone. But as one after the other of the women on whom I had operated appeared before me from three to twelve months after the cervix had been repaired, so improved in health that they could hardly be recognized as the same women, I became more and more enthusiastic over its merits. Some of these women had been under medical treatment for years for dyspepsia, headaches, constipation, palpitation of the heart, menorrhagia, miscarriages, leucorrhœa, dyspareunia and painful locomotion; some of them were emaciated and were thought to be in consumption, and yet, without any other treatment but the repair of the cervix, their health was completely restored. As I am writing this a great many of these cases are passing through my mind, and it would be interesting to give a detailed account of a few of the worst of them; but this paper is dealing with causes of failure after cervix operations and I must keep to my subject.

The first cause of failure, as I have mentioned, is lack of thoroughness in removing cicatricial tissue. No matter how deeply this may go it must all be got out. Nothing but soft tissues must be covered up. If any hard scar tissue or distended cysts are allowed to remain, the result will be disastrous to the woman's health, the operator's reputation, and even to some extent to the reputation of all gynæcologists in general. One patient who was under my care at the Western Hospital with very severe reflex

symptoms had been operated on in an American city several years before. When her list of symptoms was read before my class it was at once suggested by one of the students that they pointed to the existence of a lacerated cervix, but she stated that this had been repaired, and on examination there indeed was a beautiful cone-shaped cervix to be seen with a small os. But on examining with the finger a hard mass the size of a bean could be felt on one side beneath the surface, like a foreign body beneath the skin. Her operation was done over again, when large masses of scar tissue were removed from the angles. During the process a cyst the size of a bean was opened and thick jelly-like material exuded. The cyst wall was carefully dissected out and the lips brought together, with the result that the reflex symptoms disappeared some months later.

Another patient under my care at the Samaritan Hospital, who was sent there by Dr. MacNamara, had been attended by several physicians for convulsions. Dr. MacNamara recognized the hysterical or uterine element in them and examined her, when he discovered a badly lacerated cervix which had been repaired a year ago without the cicatricial tissue having been removed. During the week that she was awaiting her turn at the Samaritan for operation she had three or four hystero-epileptical convulsions a day. In this case a Schroeder's operation was performed and at least an inch and a half of dense cervix full of cicatricial tissue was removed, including all the part which had been sewed up before with the result that she has only had two convulsions in the four weeks which have elapsed since her operation. Her doctor tells me that she hardly ever went a day without having at least one, previous to the operation.

For these cases an Emmet operation is impossible, for the simple reason that the cervical mucous membrane itself is hopelessly diseased and indurated. The Schroeder operation of course has the objection that it is exceedingly difficult for a beginner or for one, who has not had considerable experience in plastic work, for it requires great speed on account of the brisk hemorrhage which is going on all the time. But it is a very pretty operation, leaving nothing but soft tissue in the cervix. It has one paramount advantage and that is that it not only offers no barrier to an easy subsequent confinement, but on the contrary ensures that the next delivery will be a very easy one. In fact there is hardly any first stage; the circular fibres surrounding the outlet to the womb having

been removed, there is practically no period of dilatation, which is often the most painful part of the labor.

Another cause of failure is lack of proper preparation of the patient for operation. When there is much eversion and cystic disease of the lips the patient should be kept in bed for a week or two with three douches a day of two gallons of hot water at 116° Fahrenheit. At the same time that excellent little instrument known as Butter's scarificator should be used freely all over the cervix, so as to empty all the cysts and engorged bloodvessels. It is astonishing to see how much can be done by these means in reducing an enormously swollen cervix. If these precautions are not taken and the swollen lips are brought together, the tension is so great that the stitches give way and union fails to take place.

Another rather common cause of failure is the removal of too much of the cervical mucous membrane. The operator has intended to leave plenty of the latter intact, but during the excitement of the operation he infringes a little first on one side and then on the other until when he comes to sew the opposite lips together he has only ⅛ of an inch on each lip. Now two ⅛ will make a canal only a quarter of an inch in circumference, or ⅓ of ¼ or 1-12 of an inch in diameter. A good many of these cases suffer subsequently from dysmenorrhœa and require treatment by dilatation. But the greatest cause of failure to cure the patient is the negligence or inability of the operator to recognize retroversion with fixation and serious disease of the ovaries and tubes coexisting with or antedating the injury to the cervix. Sometimes this is not our fault, for after explaining to the patient that she requires two operations, one of them not at all dangerous and the other rather serious, she will request us to do the lesser operation first in the hope that she will be so much relieved by it that she may be able to dispense with the graver one. But after having fallen into this unfortunate error once or twice I have come to the conclusion that we should never perform a cervix operation upon a woman with diseased tubes and ovaries unless at the same sitting we go on and remove the ovaries by laparatomy. If we can only do one operation at a time we should I think remove the pus tubes first. I am so much in dread of these failures to cure, for I know how much injury it does to the profession and how much it disappoints the patient to find that she has been rendered worse rather than better by the operation on the cervix, that I now make it my invariable

rule to do all the operations at one sitting, such as dilatation, curretting, amputation of cervix, repair of perineum, repair of cystocele, removal of pus tubes and ventrofixation all at one sitting. No one, therefore, should undertake the repair of a lacerated cervix, unless he is competent to diagnose retroversion and diseases of the tubes and ovaries, the necessary knowledge for which can only be obtained by frequent examinations of women in health as well as of those in every stage of pelvic disease.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF
J. BRADFORD McCONNELL, M.D.
Associate Professor of Medicine and Neurology University of Bishop's College,
Physician Western Hospital.

LUMBAR PUNCTURE OF THE SUBARACHNOID SPACE.

This subject has attracted considerable attention during the last few months. The articles by Dr. George W. Jacoby, in the *New York Medical Journal*, December 8th, 1895, and January 4th, 1896, being the most complete. Quincke, in a communication entitled Hydrocephalus, read in 1861 at the Tenth Congress of Internal Medicine, spoke of a method he had adopted to relieve the cerebral pressure by tapping the subarachnoid space in the lumbar region, he had made 22 punctures in 10 patients. Von Zeimssen, two years later, at the 12th Congress, spoke favorably of it for reducing brain pressure, 60 to 90 c.c. being sometimes removed. Lichtheim, about this time, recognized its chief value, namely, as a diagnostic proceeding. In 1895 Fürbringer reported 86 cases with 100 punctures, and his results were so striking that the matter at once received prompt notice. Browning in 1895 wrote on the subject, and Caillé in 1895. Dr. Jacoby read his paper before the New York Neurological Society, November 5th, 1895, giving his experience during six months, with 17 cases tubercular meningitis, purulent meningitis 1; meningitis with abscess, 1; tumor, 6; hydrocephalus, 4; ventricular hæmorrhage, 1; spinal hæmorrhage, 2; acute mania, 3; the procedure is based on the fact that the subarachnoid spaces of the brain and spinal cord communicate with each other and with the ventricles of the brain, the spinal cord reaches in the adult to the second, and in children a year old to the third, lumbar vertebra, and a puncture in the third or fourth interspace passes in among the nerve roots of the cauda. An ordinary aspirating syringe, with a long hollow needle, is used 8 c.m. in length, 1 to 1½ m.m. in diameter. Count vertebra from below upward, and control by counting from above downward. Dr. Jacoby states that a line drawn across and joining the highest point of both cristæ ilii will pass through the centre of the fourth lumbar; puncture between the third and fourth or the fourth and fifth, about 5 m.m. laterad from the median line. In most cases an anæsthetic

is required, the patient curves the body forward in order to obtain the greatest posterior convexity of the spinal column possible; in the case of a child, it is held across an attendant's knee. The needle may have to pass in from 2 to 8 c.m. to reach the fluid. The manometer shows that the normal pressure in an adult is 150 m.m.; Quincke found it sometimes to have reached 680 m.m. The fluid should be allowed to flow slowly, aspiration causes headache, Fürbringer has removed as much as 110 c.c. at a time; strict antisepsis must be observed, and when the needle is removed cover with iodoform collodion.

Its use has been followed in most of the instances by only temporary amelioration of the symptoms. Continuous drainage to remove toxines and micro-organisms, as well as relieve pressure, has been employed by Sahti and Wynter. Dr. Jacoby suggests puncturing the lateral ventricle, and placing a drainage tube and flushing out the entire cavity from the lumbar puncture with a boric acid solution. The employment of this method as a therapeutic means has been very disappointing in its results, but as a diagnostic measure it is of great utility. The fluid normally is quite transparent, colorless, alkaline, no histological elements, sp. gr. 1.010, albumen traces or none, and a substance like dextrose. The points to be observed in an examination are: 1. The pressure under which this fluid stands. 2. The presence and amount of albumin and sugar. 3. The presence of foreign substances in the fluid: (*a*) blood; (*b*) pus; (*c*) micro-organisms of various nature, particularly tubercle bacilli.

The degree of pressure is roughly estimated by the rapidity of the flow. The amount of albumin is important; it is increased in meningitis 1.6 per cent., in brain tumors only 0.4 to 0.8 per cent., so that over 1 per cent. of albumin favors a diagnosis of meningitis. The proportion of albumin increases after repeated punctures. Sugar is found regularly in tumors, and exceptionally in tubercular meningitis. Coagulation occurs more readily in meningitis than in the fluid, in brain tumor, purulent cerebro-spinal meningitis is readily diagnosticated by finding the streptococcus pus in the spinal fluid. Lichtheim found tubercle bacilli in 4 out of 6 cases of tubercular meningitis, and what might not be expected, the experience of Jacoby, Lichtheim and Fürbringer shows that the tubercle bacillus is found in the great majority of cases of tubercular meningitis; some care is required to find them, sometimes requiring repeated examinations. Dr. Jacoby states that the tubercle bacillus may be found in the cerebro-spinal fluid before grave cerebral symptoms appear. This method is a positive guide as to whether a case is one of tubercular meningitis when we find the bacillus; purulent meningitis when the fluid will be turbid, containing staphylococci, streptococci, or pneumococci; brain abscess when a clear fluid is found without micro-organisms of any kind. In cases of ventricular hæmorrhage blood has been found in the spinal sac. Care must be taken not to mistake local hæmorrhage at the

site of puncture for hæmorrhage into the ventricles or spinal canal; in the latter condition removal of the blood may contribute to recovery. Dr. Jacoby concluded his able paper with the following summary:

Therapeutically, it is only of direct value as a palliative through the reduction of increased pressure; it may, perhaps, prove of more service indirectly as the first step to local treatment of the cord and brain.

Diagnostically, it possesses great clinical advantages in the diagnosis of the various inflammatory affections of the cerebral membranes and in the recognition of intraventricular hæmorrhage as well as of hæmorrhage within the spinal canal.

From the facility with which this little operation can be carried out, it should not be long before lumbar puncture will form part of the routine work of every practising physician.

GONORRHŒA AND AFFECTIONS OF THE INTERNAL ORGANS.

In the *Medical Chronicle* for February, Dr. R. T. Williamson gives a résumé of diseases of the internal organs, in which gonorhœa seems to have been the exciting cause. They may result from the action of the gonococcus, from that of some toxine, or to a secondary infection through the micro-organisms connected with suppuration as the result of a mixed infection. Cases of simple and ulcerative endocarditis are reported where there were no rheumatic symptoms present. In a case reported by His, septic thrombi had formed in the veins of the prostate and in the pubic plexus leading to general infection and ulcerated endometritis.

Leyden reports a somewhat similar case; in both cases gonococci were found in the vegetations. Leyden states that in many of the cases reported they run a chronic course, and terminate in recovery. Others present the characters of malignant endocarditis, and terminate fatally. The aortic valves are affected more frequently than the mitral; in most cases the endocarditis was preceded by gonorrhœal rheumatism of the joints, and all occurred in male patients.

Danher and Borst have reported a case of malignant endocarditis following gonorrhœa; Councilman one of myocarditis and pericarditis; and Winterberg one of endocarditis and pericarditis.

Bordoni-Uffreduzzi reports a case of bilateral pleurisy and multiple arthritis following gonorrhœa, the gonococci being found in the effusion; he also found this organism in the fluid taken from the joints in multiple arthritis following gonorrhœa. Leyden reports a case of dorsal myelitis with meningitis; Gowers, one of myelitis; Burns, a case of hemiplegia with aphasia; Engel Reimers, one of multiple neuritis, all due to gonorrhœa; and Fournier states that it is sometimes the cause of sciatica.

DR. WOODBRIDGE'S TREATMENT OF TYPHOID FEVER.

Dr. George Duffield, Professor of Medicine in the Detroit Medical College, gives his experience with this method, in the April number of *Medicine*. He first outlines the pathological conditions found in this disease; he regards Eberth's bacillus as the cause of typhoid fever. Uffelmann's investigations as to the resistance of the bacillus to drying and transmission through air are mentioned; they showed that it resists drying and retains its power of development in earth 21 days, in white sand 82 days, in house and street sweepings 30 days, and on linen from 60 to 72 days, the duration being longer in a moist atmosphere. The changes in the intestine, mesentery and spleen are due to the action of the bacillus on their lymphatic glands, causing infiltration, necrosis, ulceration and cicatrization. Directly the poison begins to act on the intestinal walls, the colon bacteria become pathogenic, and increase enormously, and constitute the first cause of secondary infections.

The blood is vitiated, the white blood-corpuscle is destroyed, and the whole body suffers from constitutional infection due to the long-continued fever, absorption of toxins, and destruction of blood-corpuscles.

In the Woodbridge treatment we have a well devised attempt to employ antiseptic methods which have yielded such brilliant results in surgery. We no longer hear of "laudable pus," but, on the contrary, it is now regarded as an avoidable evil. Intestinal antisepsis is the corner-stone of this treatment, and under Dr. Woodbridge's method it is pushed to an extreme limit. According to the Doctor, three formulas are employed. The first consists of:

No. 1.

Podophyllum resin	1-960 grain.
Mercurous chloride, mild	1-16 grain.
Guaiacol carbonate	1-16 grain.
Menthol	1-16 grain.
Eucalyptol	q. s.

and should be given every fifteen minutes during the first twenty-four hours, and oftener if necessary during the second twenty-four, until not less than five or six free evacuations of the bowels are secured during each of two consecutive days.

On the third or fourth day of treatment the following tablet is to be given at intervals of one and two hours:

No. 2.

Podophyllum resin	1-960 grain.
Mercurous chloride, mild	1-16 grain.
Guaiacol carbonate	1-4 grain.
Menthol	1-16 grain.
Thymol	1-16 grain.
Eucalyptol	q. s.

This formula, and also formula No. 1, should be given as freely as possible at first, then gradually reducing the size and frequency of the doses, the object being to so regulate them as to allow the movements of the bowels to become less and less frequent until the temperature has dropped to normal, when the movements will have been reduced to one or two each day. Should symptoms of ptyalism (a wholly unnecessary complication) supervene, the tablets should be promptly discontinued for a day or two, and, if necessary, sodium or potassium chlorate given, returning as soon as possible to formulas Nos. 1 and 2. About the fourth or fifth day of treatment the soft elastic capsules should be commenced:

No. 3.

Guaiacol carbonate	3 grains.
Thymol	1 grain.
Menthol	½ grain.
Eucalyptol	5 minims.

one capsule to be given every three or four hours, alternating with the tablets.

During all the course of treatment the patient must wash down each dose of medicine with large draughts of distilled or sterilized water, or, if indicated, some good laxative or diuretic mineral water.

Dr. Duffield then briefly runs over the physiological action of the remedies employed by Dr. Woodbridge, podophyllum acting as a cathartic, calomel stimulating the excretions in the lower part of the small intestines and the upper part of the colon and the liver, and increasing the excretion of the kidneys, and also acts as an antiseptic in the intestines.

Guaiacol carbonate is an antiseptic, having a special sedative action on the nerves of the stomach, and is an active antipyretic mixed with equal parts of glycerine and pure olive oil, and spread over an area of 20 square inches and covered with oil silk. Menthol is antiseptic; eucalyptol is antiseptic and carminative, it increases the flow of saliva and augments that of urea, and is a cardiac stimulant. Thymol is an antiseptic, lessens reflex action, lowers arterial tension and reduces the temperature.

The first action of these remedies is to increase the flow of bile, which stimulates the musculature of the intestines and prevents putrefaction. His previous results with acetanilid, phenacetin, salol, and the cold bath treatment were an average duration of 61 days, as against 13 7-13 days with the Woodbridge treatment.

He then draws attention to a series of thirteen cases which were under his care from October 1 to December 31, 1895, in which the Woodbridge method was used exclusively. In all cases it proved satisfactory, shortening the disease and lowering temperature. In all cases when the temperature reached 103° a sponge bath was ordered, as it gave relief and quieted restless patients. These were rarely required after the fourth or fifth day, because of the rapid reduction of the fever.

Case No.	Continuance of Fever.	Case No.	Continuance of Fever.	Case No.	Continuance of Fever
1	17 days	6	12 days	11	16 days
2	5 days	7	14 days	12	18 days
3	23 days	8	15 days	13	12 days
4	7 days	9	15 days		
5	13 days	10	8 days		176 days

It will thus be seen that the average duration of treatment was $13\frac{7}{13}$ days.

In conclusion he states: I wish to say that in my hands this treatment has worked most satisfactorily, shortening, aborting and greatly modifying the severe cases of typhoid fever. There is no tendency to relapse, no unfavorable complications arise, and the bad effect of prolonged stimulation is done away with. I found the plan a most successful one, and heartily commend it to my fellow-practitioners.

He used in the cases above reported the formulas as prepared by Parke, Davis & Co., in harmony with Dr. Woodbridge's instructions. Prescriptions Nos. 1 and 2 are tablets, and No. 3 is issued as a soft elastic capsule. They also have formulas for children under ten. These are easy to administer, accurate, and reliable."

OXYGEN IN THE TREATMENT OF PNEUMONIA.

In an editorial in the *Philadelphia Polyclinic* (April), the subject is commented on as follows:

We have in a previous article alluded to the insidious and extremely dangerous form of pneumonia which accompanies the present epidemic of influenza in Philadelphia, and probably elsewhere. These cases apparently begin mildly. It is only toward the close that alarming symptoms develop, and only by the utmost watchfulness that their true nature can be early recognized and the fatal issue be averted. At first we resorted to the use of oxygen at the time when symptoms of distress in respiration began to be manifested; but in the cases more recently treated we have used oxygen from the beginning, with the result in cases apparently similar in all respects to the cases earlier seen, of apparently averting the oncoming of danger. This has more than ever convinced us that the time to use oxygen in acute lobar pneumonia is like the time to use the Brand bath in typhoid fever, as early as the patient is seen; and that the way to avoid failure in the selection of cases is to make no selection.

In other words, while a large number of cases of pneumonia, varying from 75 per cent. to 90 cent. in different epidemics, will recover, with any treatment, without treatment, even in spite of treatment, it is impossible to say beforehand in the individual case that it is one of those to be included in the happy category; and as treatment does make considerable difference in the remain-

ing cases, all statistics to the contrary notwithstanding, it is important that the treatment found most serviceable in the worse cases should be applied early in all cases to prevent them from becoming instances of the worst. As soon, therefore, as the diagnosis of acute lobar pneumonia or of influenza pneumonia is made, inhalation of oxygen for ten minutes every hour, or fifteen minutes every two hours, should be instituted, and continued so long as the patient remains comfortable. If, notwithstanding this treatment, omitted only during the night when the patient is resting quietly, respiratory or circulatory embarrassment increases to a point exciting apprehension of a fatal issue or even of a dangerous course not necessarily fatal, the period during which oxygen is administered should be increased to one-half hour in every hour, or the inhalation even be continued without intermission for hours.

While under this routine much oxygen will be wasted, and many patients will recover with the aid of oxygen that would also have recovered without it, we have no doubt that the number of severe cases will be lessened, and the mortality very greatly diminished. We do not mean to imply by this either that the early administration of oxygen will prevent death in every case, or that this should be the only therapeutic expedient made use of in the treatment of lobar pneumonia. On the contrary, we believe that the administration of strychnin at first in small doses, afterwards in larger doses, the continuous application of heat to the chest, and the administration, according to the symptoms of the individual case, of ammonium chlorid or ammonium carbonate will always be indicated; and that in cases running a severe course, notwithstanding the early use of oxygen, there will be a certain period in the case in which the use of amyl nitrite or nitroglycerin will be demanded. Free action of the bowels, of the skin and of the kidneys should be kept up, and for the latter purpose it may be necessary to employ the solution of ammonium acetate as the vehicle in which the stimulating expectorant is administered. Counter-irritation early in the case, dry cupping or wet cupping in some cases, venesection in others, may be called for; but whatever other measures are employed or omitted, our experience in the present epidemic of insidious, dangerous pneumonia in connection with influenza leads us to insist upon oxygen early and regularly as a necessity.

TRANSFUSION OF BLOOD IN SEVERE CHRONIC ANÆMIA.

Ewald (*Berliner klin Wochenschrift*, 1895, No. 45, in *American Journal of the Medical Sciences*) was called to see a man, aged thirty-two years, apparently in collapse. The history obtained then, and examinations made afterward, showed the case to be one of idiopathic anæmia, having many of the characteristics of the

so-called pernicious form. The patient could not swallow, injections of camphor had no effect on him, and as a last resort, apparently a hopeless one, transfusion was practised. The blood was taken from the patient's wife, defibrinated, and injected into the median vein to the amount of about 85 c.cm. Anæsthesia was not necessary. The patient's pulse and breathing improved slightly after the transfusion, but injections of ether and camphor were necessary throughout the following night. On the second day after that, strength gradually returned and the patient became convalescent. On the third day the blood showed 1,250,000 red corpuscles and 29 per cent. of hæmoglobin. There were few polynuclear leucocytes, no nucleated red corpuscles, very few eosinophile-cells. There were hemorrhages in the retina. The blood after two weeks showed 2,300,000 red corpuscles and 33 per cent. of hæmoglobin. Five months later the hæmoglobin was the same, the red blood-corpuscles 3,500,000 to the c.cm.

After discussing the clinical and pathological features of the case—which he does at some length—Ewald inclines to the opinion of Hunter, that pernicious anæmias are due to auto-intoxication caused by changes in the gastro-intestinal tract. In view of our present knowledge of auto-intoxication and antitoxins, Ewald raises the question whether, in such cases as the one just cited, the injected blood has not some antitoxic action, so that a poison circulating in the body becomes neutralized or destroyed by it, and so gives the body time to gain new strength.

In addition to the transfusion and after it, the patient was treated by arsenic in various forms, quinine, iron, hydrochloric acid, and a combination of resorcin, bismuth-salicylate, and benzo-naphthol. Meat was but sparingly used in the diet.

THE HYPODERMIC USE OF GUAIACOL IN ACUTE PULMONARY TUBERCULOSIS.

COGHILL (*British Medical Journal*, March 7, 1896, *Medicine*) has obtained encouraging results in acute pulmonary tuberculosis by the subcutaneous administration of guaiacol. In many of the cases in which the treatment was carried out, the injections were persevered in for some time before any impression was produced on the temperature. The fall of temperature was always comparatively gradual. The subsidence of the fever was invariably marked by increased appetite and weight, and diminished cough and expectoration. A moderate warm perspiration following the injection, a variable interval takes the place of the regular hectic night-sweats. In beginning the treatment, the minimum dose is given before the diurnal rise of temperature has passed above normal, and if the temperature is not reduced in a few days the dose is increased drop by drop to five or even seven minims, which rarely required to be exceeded. When the reactive sweating is excessive, two small injections are given daily. The buttock is the most favorable

region for the injection, which should be made deep and at a right angle to the surface. In every case, sooner or later, the guaiacol is tasted by the patient a few minutes after the injection. The author has also employed the carbonate of guaiacol, benzoyl guaiacol, and iodoform dissolved in guaiacol in the same manner, but concludes that these compounds have no special claims to therapeutic preference.

SURGERY.

IN CHARGE OF
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A LECTURE ON THE LINES OF ADVANCE IN ABDOMINAL SURGERY.

By J. KNOWSLEY THORNTON, M.B., C.M.,
British Medical Journal, Feb., 1896.

After some introductory remarks, Mr. Thornton said: "The one dread enemy of progress in surgery is conquered, thanks to Lister's indomitable perseverance and courage, and to the faithful disciples of many lands who have striven to follow his teaching. To-day we can, in the great majority of cases which require our aid by the use of antiseptics, keep asepsis.

Cases septic before they seek our help we can do much to purify. He expresses the belief that the time will surely come when we will possess some more potent and less irritating germicide than carbolic acid or corrosive sublimate. He ventures further to hope that pre-existent sepsis will some day be defeated from within instead of by the cruder and more painful method of external application. We must look for remedies which will so strengthen the vitality and resisting powers of the tissues, that micro-organisms shall be unable to spread from their local habitation into surrounding fluids and solid tissues. While waiting on the scientific physician, the bacteriologist and chemist, there is much which the surgeon unaided can do. The lecture is a consideration of the "what there is to do and the way to do it."

The Liver and Gall Bladder.—Under this head he considers: 1, operations on liver itself; 2, gall bladder and its ducts.

The liver is said to bear well the knife, the trocar, and the suture, and bleeding from its wounded surface is readily stopped by slight soft pressure, or bringing its injured surfaces gently together, or into contact with some other surface by fine sutures.

Hepatotomy is advocated for the treatment of hydatids, simple cysts and suppuration. Neoplasmsof the liver are almost always malignant, so they do not afford scope for surgery.

Lindemnann in 1871 is credited with first performing hepatotomy for hydatids. Tait followed his lead in 1873, and in a succession of cases established the operation.

The old unsurgical practice by puncture, by aspiration, by cautery, by incision, and *à deux temps* is denounced, the mortality by the old methods was very great, and now by abdominal section and immediate opening of the abscess is very small.

To diagnose an abscess in the liver is not always easy, but perhaps Roentgen's marvellous discovery will come to the aid of the surgeon. Mr. Thornton says: I firmly believe that with an improved early diagnosis and prompt operation, no case of abscess of the liver need in the future be fatal or seriously damage the health of the patient, the key of the whole position as to advance in abdominal surgery has been reached when an allusion is made to improved diagnosis, so I would say to those intending to work out improvements in abdominal surgery "Diagnose, Diagnose, Diagnose." Passing from the liver to gall bladder and its ducts, one finds again that the diagnosis is often at fault, and an exploratory abdominal incision does not always help us, for the matting and disorder of the parts may be so great that it is impossible to make out what is the matter, even after opening abdomen, and we close it, no wiser than before.

Splenectomy is unfavorably considered, the chances of immediate success are small, and the future health of the patient is likely to be seriously impaired.

This surgeon, when treating of the alimentary canal, expresses the opinion that there is not much room for new departures, and advocates perfecting diagnosis and the details of all that we now attempt. With regard to wounds or perforation of the intestinal canal, do not wait for symptoms, when you can make a reasonably sure diagnosis, but get to work, and repair the injury, get parts surgically clean, work methodically and as quickly as is consistent with thoroughness.

A decided and recent advance in intestinal surgery has been made by fortifying the patient's vitality by warmth and stimulating hypodermics.

Pylorectomy is undoubtedly a remarkable achievement, and shows what the human frame can endure and recover from.

Gastro-enterostomy.—He says there is a more useful future for gastro-enterostomy than pylorectomy; and if the former operation were performed earlier, it is thought it would be more successful and give much relief to suffering. Brilliant operations are not needed, but careful observation of signs and symptoms, which can tell us when to operate and when to hold our hands. Again, in all varieties of intestinal obstruction howsoever caused, an early and correct diagnosis can only lead to future advance in the treatment of this grave condition. In acute obstruction of the bowels a purgative should never be given, but an exploratory incision should be the rule, which, carefully performed, can do no harm,

while it gives at once a certain diagnosis and permits of any necessary further treatment.

In the case of acute obstruction, it is advised to clear stomach by emetic or by stomach tube; an enema should be given to empty bowel to clear away retained matters below point of obstruction, and thus relieve the tension and stop formation of gas due to intestinal decomposition; he believes there is at present too great an inclination for operative treatment in cases of appendicitis.

Whether an extensive resection of the bowel for a malignant neoplasm will do more for the relief of suffering and the prolongation of useful life than was formerly obtained by the formation of an artificial anus, time alone will tell.

Little sympathy is expressed with the most recent development of uterine surgery. To fix the uterus or broad ligaments to the anterior parietal peritoneum is a proceeding against nature. Alexander's operation was a scientific conception, but the objections to it and its frequent ultimate failure outweigh its possible benefits. The cases are very rare in which such a proceeding is necessary, nearly all cases being curable by careful attention to the general health of the patient and medicinal remedies to restore tone to the uterus and broad ligaments, aided, it may be, for a time by a simple vaginal support.

American surgeons are credited with having done more than either English or continental surgeons in making out improved methods for the removal of uterine tumors. The method of Baer is singled out as being the most surgical. It does not seem that there is a great future for the surgical treatment of malignant disease of the uterus, and he ventures to hope that the ovaries and tubes will not be removed as frequently in the future as they have been in the past.

Nephrorraphy is highly praised, and to-day a large number of people are relieved from suffering, and many returned from invalidism to useful and comfortable life.

A NEW AND ORIGINAL METHOD FOR OBTAINING MATERIAL FOR SKIN-GRAFTING.

Dr. Zera J. Lusk, of Warsaw, N.Y. (*Medical Record*, December 7, 1895), described a case in which he produced a blister, and used the epithelium as a grafting material. The patient was a woman, aged 52 years, who had a large varicose ulcer two and one-half inches in diameter, three inches above the ankle on the outer surface of the left leg. She had worn elastic hose and tried all kinds of ointments for eight years. The granulations were unhealthy and bathed with a four-smelling discharge. The treatment consisted first in thorough curettement, followed by stimulating applications, so that in ten days the granulations appeared healthy. A surface on the left thigh near the anterior superior spinous process was made aseptic, and on it was applied a piece of

emplastrum cantharides two inches long by one inch wide (first moistened with carbolized oil). Vesication was produced in six hours, when the plaster was carefully removed. The epithelium was detached at the edges of the blister, washed in boric-acid solution, after which all moisture was absorbed with sterilized cotton, and it was suspended in a four-ounce salt mouth-bottle (aseptic cotton being used for a stopper), and kept at a temperature between 55° and 70° F. (12.8° and 21.1° C.). It was thoroughly dry in three days, when a piece one inch square was divided, making twelve grafts, which were applied in the usual way. The results were extremely gratifying. Nine of the twelve grafts took nicely and grew rapidly, so that in one month this ulcerated surface was healed, having a substantial epithelial covering.

OBSTETRICS.

IN CHARGE OF

H. L. REDDY, M.D., L. R. C. P. London

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THE EFFECTS OF LACTATION ON MENSTRUATION AND IMPREGNATION.

1. Of suckling women, 57 p.c. only have absolute amenorrhœa.

2. Forty-three per cent. menstruate more or less, but twenty have absolute regularity.

3. Impregnation does not take place so readily during lactation as at other times, but this is not true to such an extent as has been imagined.

4. If absolute amenorrhœa is present during lactation, the chances of impregnation occurring are only six out of one hundred.

5. If menstruation occurs during lactation, the chances are sixty in one hundred.

6. The more regular a woman is during lactation the more likely is she to become pregnant.

7. During a menstruating lactation the changes in the uterus are presumably similar to those connected with the ordinary monthly periods, and the mucous membrane forms a nidus for the ovum.

8. In the woman who does not suckle at all, the menses appear as a rule some time in the first six weeks after delivery.—Abstract of a paper by Dr. L. Remfrey before the Obstetrical Society, London.

VOMITING OF PREGNANCY.

A writer in the *Lancet* says: "I have not failed once for many years, by a single vesication over the fourth and fifth dorsal

vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period of gestation, no matter at what stage I was consulted. The neuralgic toothache and pruritus pudendi of the puerperal condition yielded as readily, and to one application."

CERTAIN MICRO-ORGANISMS OF OBSTETRICAL AND GYNÆCOLOGICAL INTEREST.

In a paper read by Dr. G. D. Robinson before Obstetrical Society, London, he pointed out the fact, that in fatal cases of puerperal sepsis, the streptococcus pyogenes is constantly found in the blood and tissues. Normally after labor the uterine cavity was known to contain no microbe, but many are found in cases of sepsis. Of all those found, the streptococcus pyog. appeared alone to be able to pass through the uterine wall along the veins and lymphatics, and so to cause general infection. This microbe might cause death without producing any obvious lesion, or it may set up suppuration in various tissues. It may produce false membranes on the peritoneum or genital tract with or without suppuration. The writer next pointed out the supposed connection of the bacillus coli communis with various inflammations (usually suppurative) of the human body. He quotes a case in which a woman four months pregnant had intestinal obstruction from retroversion of the gravid uterus. Abortion occurred four days after reposition of the uterus, followed in a few hours by fever, then diarrhœa which continued for five days until the patient died. During life pure cultures of the bacillus coli communis were obtained from the uterine discharges, and after death from the uterus, peritoneum, and blood in the heart.

DYSTOCIA FROM VENTROFIXATION.

Milander (in Zeit. f. geb und gyn, 1895, Band 33 H 3) has collected seventy-four cases of ventrofixation which subsequently became pregnant. Of these, one woman died before labor commenced. Ten were still pregnant. In six cases abortion occurred, three were prematurely delivered and fifty-four went on to full term. Of these cases three were transverse presentations and two other abnormal presentations, leaving only 49 normal presentations. Some of these had pain at the site of fixation; there was feeble labor in two, and eleven cases needed aid consisting of two Cæsarian sections, three cases of version, and four times the forceps. The author points out the large proportion of abnormal positions and seriousness of the operations required.

Edebohls (in *Med. News*) holds the same views, and says: "The indications for ventral fixation of the uterus should be limited to the utmost degree in woman liable to future pregnancy."

COLD BATHING DURING MENSTRUATION.

Cold bathing during menstruation is a beneficial measure, provided women accustom themselves to the treatment by bathing every day for at least eight days before the arrival of the period, when they can continue during the menstrual flow without any danger. In the case of a very anæmic girl, in whom this treatment was instituted, it gave most satisfactory results. Houzel, before the recent Boulogne Congress, held that cold salt-water baths facilitate the menstrual flow, increase the duration of genital life, and likewise increase fecundity in a remarkable manner.—Dr. Depasse, *in Gazette de Gynæcologie.*

THE VAGINA AND PUERPURAL INFECTION.

Romme (*Archives de Gynéc. et de Tocologie*, February, 1896) agrees with the newest German school in deprecating routine injections and frequent exploration in normal labors. The results of simplicity have been very encouraging. Walthard had demonstrated, he says, the truth about the vagina and sepsis. The virulence of the vaginal streptococcus in a healthy pregnant subject not officiously treated by the obstetrician and midwife is equal to that of the streptococcus of other mucous membranes, such as the alimentary canal, which lives on normal secretions. In other words, it is not virulent at all, and acts as a saprophyte on healthy tissues. But when the resistance of the tissues is diminished in the vagina, as in the intestine, the streptococcus can act as a parasite, and be as virulent as the special germ, of the same genus, which causes puerperal fever. Hence routine injections are deleterious in normal labor where delivery has not involved true traumatism of the tissues. Digital exploration is to be avoided, as the vaginal streptococcus might be introduced into the previously aseptic but natually lacerated tissues of the uterus. On the contrary, rigorous disinfection of the vagina is indicated whenever exploration or operative intervention has to be carried above the level of the os externum, and in all abnormal labors. It is also needed when the patient has an affection which diminishes the resistance of the tissues, such as nephritis, cardiac disease without compensatory hypertrophy, syphilis, diabetes, intercurrent infectious maladies, and anæmia.—*Brit. Med. Journal.*

PHARMACOLOGY AND THERAPEUTICS.

IN CHARGE OF

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APLEA FOR THE BETTER STUDY OF DRUGS.

Strike one bad case, and the chances are you will have several to keep it company, and it is only when confronted with an emergency demanding the nicest judgment in the selection of the remedy to be employed, a judgment that has to come to a conclusion quickly, with no time for reference to books, and then the general practitioner finds one of three things: (1) either that he has not devoted the time and attention he should have to his armamentarium medicorum, and cannot convince himself that he is using his remedy from any conviction based on a knowledge of its exact physiological properties; (2) that he has so far dropped from the van that he finds he can get along fairly well on a few well known drugs and a twenty-year old reputation; or (3) (*rara-avis!*) he selects his drug from a conviction based on his knowledge acquired either from his own experience or that of others.

In no class of drugs, perhaps, as in those exerting an especial influence on the heart and the circulation is the conviction borne in on one that the man of medicines does not attach the same importance and study to his tools (the drugs) as the man of surgery does to his (the instruments). Your surgeon, who aspires to any recognition in the field of operative surgery, will tell you the name, originator, modifier, and introducer of any instrument in the whole range of special and general operations; while the average man of medicine can with difficulty describe even the plant from which the drug he uses is obtained, much less describe how it is prepared, or give correctly offhand its more prominent physiological actions. While this may seem a sweeping assertion to make, it is one nevertheless which is susceptible of easy proof—there is not a new graduate, flushed with his new honors and impressed with the importance of his mission in the world of sick and suffering, but collapses, and gets a pretty fair opinion of his own insignificance when he tries to write his maiden prescription. Symptoms, physical diagnosis, clinical examinations and treatment have been fairly well drummed into him, and at an examination he will tell you glibly enough what drugs to use, and how, and when, to use them; but don't ask him to write a prescription containing them, or question him too closely on their physiological action; the former will result in either a stereotyped formula, hoary with age, and committed to memory, or an uncouth mixture, obnoxious alike to palate and eye; the latter will show how much may be forgotten in a short twelve-month, and

let me say right here, that the blame does not lie where at first sight it would seem most likely, *i.e.*, at the door of the teacher responsible for his subject, *but* to an indefinable feeling that the subject is in the curriculum and therefore *has* to be taken, but—well—that it is a knowledge that somehow can be picked up afterwards; that in some unaccountable manner the new medico will instinctively get into a proper style of prescribing the right drugs for the right diseases, and trust to luck, stray items in a medical journal, or, still worse, to that most effectual destroyer of individuality of thought, a book of formulæ, for a combination that will be effectual, palatable, and scientifically correct. That this feeling does exist is undeniable; *why* it should, is just as inexplicable. Of all classes of men, students, and especially medical students, are most susceptible to outside influences; they form a most delicate barometer, sensitive to the slightest impression conveyed, perhaps unintentionally, by those who for four years associate with them and endeavor to guide their studies. And herein perhaps is to be found a reason for the often-times lamentable ignorance displayed by a graduate who will be called on, it may be on the first day of his graduation, to handle two-edged tools. It is not so long since that I heard an old practitioner say: "Materia Medica—oh, that don't count, that's a primary subject." That is where he made a mistake; *it does count*. A man may not be called on very often to amputate at the shoulder, or diagnose between a commencing transverse myelitis and an extensive arthritis deformans, but he *is* called on every day of his life, and many times in that day, to write prescriptions, and rarely any two for just the same conditions. If Physiology and Pathology are the left hand, then Materia Medica and Therapeutics is surely the strong right hand of the Theory and Practice of Medicine. Under existing conditions it has of necessity to be gotten off the students' hands before the final year, but don't throw it aside with "Oh—that's a primary subject." It is primary and final both, linked on the one side with Botany and Chemistry, on the other with Medicine and Practice. Nor would I be understood as making my remarks applicable to the new graduate only: I have a copy of a prescription signed by a well known practitioner in the capital of our Dominion, containing eighteen ingredients for a cough mixture, and it is barely two weeks ago that my attention was drawn to a prescription from a graduate of many years standing, containing the iodide of potassium and liquor strychninæ,—rather a dangerous incompatible, the patient standing a good chance of getting the whole of the iodide of strychnine at the last dose; but these are glaring cases. Can we any of us say that we know our drugs as we ought? We have gone far afield these days, in the pursuit of new remedies, and in our fever for the search after the new, have been tempted to overlook the old. Do we all, for instance, appreciate the action of quinine on the system, apart from its anti-periodic power? Do we remember as much as we ought to, about opium and its principal alkaloid, or

do we simply remember it as a pain-reliever and nothing more? When sparteine is mentioned, how many think of the kidneys and how few of the heart? To how many is atropine a drug which will dilate the pupil, stimulate the respiration, and nothing more? Let me enter a plea, then, for a closer study of the means we, as physicians, use in treatment; let us know our tools better, let us feel, when we use a drug, that we know approximately all about it, not only what it ought to do, but what it can do, and what it *might* do. Let us remember that the first lesson an apprentice learns is to handle his tools efficiently, and if this be a *sine quâ non* in one who builds and repairs inanimate machinery—how much more necessary in one who has the repairing and up building of the animate and precious human machinery! A thorough training in drugs and their uses is the best possible preliminary to the physician. One of the finest teachers of clinical medicine in the world is in Charing Cross Hospital, London, one who devoted half a lifetime to the study of drugs, and whose little volume is a marvel of compactness and accuracy of physiologial action—J. Mitchell Bruce. Nor have we to go so far afield for examples of those who, having achieved the highest positions in their profession, are past masters in the science and art of Materia Medica and Therapeutics. So much for the practitioner, and I hope my remarks may be food for thought; but what about the student? Just so long as the subject is treated with indifference, just so long will we be behind-hand in remedying the evil. We have pathological laboratories, physiological laboratories, chemical laboratories, histological laboratories, why not a pharmacological laboratory? Every college aiming to give her students the latest advances in medical science ought to be in a position to show them the things about the drugs they hear and read about; physiological actions ought to be demonstrated, the future medical man ought to see made, hand le, and help make, many of the preparations he will prescribe; original researches and experiments ought to be encouraged, to yield wider experience and increased knowledge of our drugs; and in this way, the foundation may be laid for an appreciation of a subject which, under existing conditions, in too many cases, the newly-made medico will need most and know least about.

SPARTEINE IN DISEASES OF THE HEART.

"A good thing cannot be repeated too often; in order to "utilize a useful thought or idea, it must be constantly brought to "mind;—especially is this true when one seeks to supplant an old and "fixed idea by a new one; to replace a routine practice by a new "method. According to the old saw, 'you have to drive out an old "nail, by using a new one,' and one has just these difficulties to sur- "mount when one tries to supplant the old method of giving the "preparations of the crude drug, with their faults of variability, by the "more scientific method of giving the alkaloids in exact doses." In

this wise argue those who advocate the use of the alkaloids of drugs in preference to the preparations of the crude drug. That their contention is true in many respects, cannot be denied; that we should go so far as to say that nothing but the alkaloids should be used, would be folly. For example, the happiest results often follow the exhibition of the freshly prepared infusion of digitalis in suitable and often almost hopeless cases; disappointment has perhaps more often followed the use of its so-called alkaloid, digitalin, varying as it does in the hands of different makers. Neither, in many drugs, can we point to one alkaloid as possessing all the properties to which the plant owes its efficacy in therapeutics—as, for example, opium; but while this is true, there are many alkaloids which may be obtained in sufficient purity, and which possess properties, not perhaps characteristic of the whole plant, but meeting certain well-defined indications in therapy, which render their use of the greatest importance. Taking cardiac lesions, whether functional, or, more especially, where organic, whether due to disturbances in any part of the nervous mechanism of the heart, or due to actual lesions of the valves and subsequent changes in the heart muscle, or due primarily to some fault in the muscle wall itself, not only is an absolutely correct diagnosis of the actual conditions present of the highest importance, but the prompt exhibition of the remedy whose physiological action will meet the exigences of the case, the first and greatest consideration. In this connection, it may not be out of place to note the diagnostic sign first reported by M. Huchard, as associated with myocarditis, to which he has given the name "Brady-diastole," and indicative, not only of weakness of the heart, but of commencing dilatation. It differs from that noted by others, where there is enfeeblement of the *first sound*, observed in the myocardia and commencing dilatation of typhoid fever (Picot), of fibrous and fatty degeneration (Stokes), and of smallpox (Huchard and Desnos). The sign is an alteration in the *rhythm*, yet differing from the fœtal heart-beat (which is characterized by an equality of force and duration of the two pauses) in that, instead of an equal pause, the diastole is distinctly lengthened. Take any heart where there is a degeneration of the muscle wall, with or without an associated change in the arterial walls, and not only is there less muscular structure than normal, to contract, but the remaining fibres are weakened and undermined by the condition prevailing; such a heart fills with blood, an effort is made to empty itself, and the very fact that it is an effort, and not the normal contraction, necessitates a longer pause or diastole for the muscle to recover itself; during this longer pause, the heart is over-filled, and a greater effort than before is necessary; now, in a normal muscle wall the result would be hypertrophy, in a degenerated muscle wall the result is dilatation. If, with evidence of enfeebled circulation, one gets a weakened first sound, and the distance between the second and first sounds out of proportion to the distance between the first and second sounds, compared with the normal, then one may

be tolerably safe in diagnosing a degeneration with commencing dilatation. It is clear, then, that if the above explanation, as advanced by M. Huchard, be a correct one, then the sign noted by him is of the greatest value as indicative of *commencing* dilatation,—just the time when drugs, if they are to do any good, are urgently needed. To what drug shall we turn ? Digitalis is certainly contra-indicated, not only for its prolonging the diastole in a condition where the heart muscle is not in the best possible condition to stand it, or to respond to stimulation, but also on account of its action on the vessel walls, contracting them and increasing the embarrassment; strophanthus has almost the same objections. Strychnine, while also stimulating the heart, raises blood pressure too, until large doses are given. In sparteine, however, we have a drug which meets all the indications, and is *par excellence* the remedy which will yield the most satisfactory results in the condition named.

Sparteine, used in the form of its sulphate, the most stable and generally employed of its salts, and given in suitable doses (1-6 to ½ gr.), exerts (*a*) a specific dynamic action on the heart, either through the nerves, of which, though, in fairly large doses it generally lowers the reflex excitability, in moderate (1-6 to ½ gr.) doses, stimulates the vagus and centres in medulla; (*b*) through the cardiac ganglia, or (*c*) through a direct action in the contractility of the fibres of the heart muscle itself, to both the latter of which it is a powerful stimulant. Given in the doses indicated, sparteine is without effect either on the spinal nervous system, or vaso-motor system, confining itself absolutely to the heart, acting on it as noted above either directly on the cardiac ganglia and muscle, or through the nerve centres. Under its influence, the weak and rapidly beating heart takes on a force and rhythm quite remarkable, at the same time lowering its frequency and regaining its normal regularity, an action not secondary to any influence on the circulatory system, but due primarily to its power on the heart mechanism itself. Given hypodermically, its effects may be noticed in from 5 to 30 minutes, while its effects are equally good, but correspondingly longer in manifestation, when given by the mouth. The facts which stand out prominently, when we review its physiological action on the circulatory system are: 1st, its stimulant, regularizing action on the heart and heart rhythm; 2nd, the complete absence of any effect on the blood pressure (true, after its exhibition the blood pressure rises, but this rise is not due to any action in the vasomotors, but is the result of an increased heart force); 3rd, its rapidity of action and non-cumulative effects. These three factors alone point to sparteine as being of all remedies the one indicated in a myocarditis with dilatation, either threatened or actually present.

It is not, however, in myocarditis alone that sparteine is useful, but in any lesion of the heart, where its peculiar powers find a suitable field, where the indications are to relieve an over-burdened and over-rapid heart. In lesions of the valves, more perhaps in the advanced mitral cases; in functional disorders, such as one sees as

the result of bodily or mental labor, the abuse of tobacco, or the rapid heart associated with exophthalmic goitre; in angina pectoris, or in true neuralgia of the heart; and in the rapid heart associated with tuberculosis, especially in the young (Maurange). Referring to its use as a cardiac tonic and stimulant, Dr. Casenave de la Roche (1894), in reviewing the numerous new remedies whose powers on the heart and circulation had been vaunted in the Medical press, says:—"Whether they have carried out the brilliant promises of "their introducers, I may be permitted to doubt; but..... I will "make, however, an exception in favor of sulphate of sparteine, "..... a drug which certainly regulates the action of the heart, "without affecting the arterial tension." The Academician Laborde in comparing the actions of strophanthin and digitalin with that of, sparteine, says: "..... In sparteine, however, we have produced, in a "large measure, the fundamental effects of increased force and am- "plitude of the cardiac contractions, without any appreciable action "on the intra-vascular pressure." Germain Sée says of it, that "of all the cardiac stimulants, sparteine is the one which acts most "promptly and surely on the elasticity of the heart," and claiming for it that it is the one drug which most completely and most promptly reduces the size of a dilated heart, acts best on the cardiac muscle, and increases best its tonicity.

With reference to its administration, cases which call for a drug such as sparteine, necessarily require that its effects should be obtained as quickly as possible. The sulphate is readily soluble in water, and a solution in distilled water containing 1 gr. to the dram is useful, hypodermic tablets containing 1-4 gr. each afford a ready means of preparing the solution. For internal administrations, a syrup containing 1 grain to the tablespoonful is handy, while Germain Sée recommends the following:—

Sulphate of Sparteine, 1 grm. (15½ grs.).
Distilled water, 100 grm. (3½ oz.).

Giving 1 to 3 teaspoonfuls in the 24 hour—(equal to about 3½ gr. in 24 hours).

As to the dose, in cardiac cases, perhaps the best results will be obtained by giving small doses frequently, say from 1-6 to 1-4 grain every three hours—equal to about 1½ to 2 gr. for the 24 hours. Owing to its prompt action, and almost equally rapid elimination and non-cumulative effects, it is better given in small doses frequently than in massive doses at longer intervals.

Revue Thérapeutique des Alcaloïdes No. 44.

Formulaire des Alcaloïdes—H. BOCQUILLON-LIMOUSIN.

COLLAPSE AFTER TRIONAL INGESTION.

Dr. J. W. Irwin calls attention to the (to him) unusual sequelæ of collapse, cyanosis, irregular and intermittent action of heart action, followed by aphasia and loss of memory in a patient suffering from insomnia, for whom he had prescribed 45 grains

Trional in 3 divided doses during the night. Having occasion to use a hypnotic on the same patient 4 months subsequently, he combined the 15 grs. of Trional with 1 gr. Caffeine, with the most gratifying results. During the eight months following, during which he continued the use of the two drugs, the patient gave no signs of embarrassed circulation until sudden collapse occurred at his place of business, from which he rallied slowly under stimulating treatment, and the abandonment of the Trional.—*Am. Therapist*, Vol. iv., No. 4, 1895.

Trional, on account of its hypnotic properties, makes a most efficient addition to Phenacetine and hot stimulants in the treatment of the insomnia of influenza. It is worth recalling the close relationship which exists between Trional (Di-ethylsulphon-*methyl-ethyl*-methane), sulphonal (Di-ethylsulphon-*di-methyl*-methane), and Tetronal (di-ethylsulphon-*di-ethyl*-methane), and that the symptoms described by Dr. Irwin are very similar to those produced by an over-dose of sulphonal. In the administration of these three allied hypnotics, it is important to watch the urine, a peculiar red color indicating the presence of hæmatoporphyrin, as first noted by Ernst Schultze of Bonn. This is a symptom of grave importance, calling for the immediate withdrawal of the drug.

ALLYL SULPHIDE IN TUBERCULOSIS.

Séjournet (*Sem. Méd.* XV. 95) claims to have achieved remarkable results in pulmonary phthisis by the hypodermic injection of a 5 per cent. solution of allyl sulphide in sterile olive oil; the injections are made every day or two into the supraspinous fossa of the side or sides affected. Asepsis precludes abscesses. He commences with 16 minim injections, gradually increasing to 32 m.; the first few injections are painful, later they are painless. After a few injections, the sweat and even the breath give the odor of the drug. After a few days treatment, the pulse and temperature become normal. Hæmoptysis ceases, dyspnœa, cough and expectoration diminish, general health improves, and stethoscopic signs change for the better. After a three weeks treatment, and where there were no cavities, the author claims results equivalent to a cure; where cavities existed, they were more or less benefited. Séjournet reports two cases of lupus cured by injections of allyl sulphide into the parts affected, and in conclusion claims that these injections exert a favorable influence over the dyspnœa of asthmatic patients.

IODIDES AS TÆNICIDES.

J. H. Newington (*Med. Weekly*, XV. 1895).

Newington reports one of his patients as passing a large tape-worm after having taken the following mixture:—

Medical Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, 27th December, 1895.

A. D. BLACKADER, M.D., President, in the Chair.

Dr. E. N. Chevalier, of St. Johns, P.Q., and Dr. F. X. de Martigny were elected ordinary members.

Cases.—Dr. G. E. Armstrong exhibited a woman from whom he had removed the whole left upper extremity for sarcoma, a year previously, by Paul Berger's method (1887), and read history of case and operation.

Dr. S. H. Matthewson, per Dr. Buller, shewed:—

1. A preparation shewing complete bony cup in the fundus around the optic nerve in a case of phthisis bulbi.
2. Melanotic sarcoma of eye (microscopic specimens).
3. Eye, with fragment of iron in vitreous.

DISCUSSION ON CANCER (*Continued*).

DR. BULLER, speaking on cancer of the eye and parts about it, stated that his experience of cancerous diseases was necessarily limited to those which occurred in the eye and about it. With regard to the eyelids he stated that cancerous growths here were not at all infrequent, and were usually of the epithelial type. Early diagnosis was usually easy, and a radical cure effected by operation when the growth had not reached the periosteum and bone; where, however, this occurred, cases were apt to go from bad to worse, and terminate fatally. Dr. Buller stated that the wider his experience became the more firmly he was convinced that cancer was primarily a local condition, and that metastases were as apt to occur from soft cancerous growths as from the harder varieties. On the hypothesis that the cancer began necessarily as a single aberrant cellular element, it was easy to understand that with a growing tissue, some of these elements may enter the circulation, and be carried in their germinating state into some other part of the body and there form new "foci"; that growths occurring within the eyeball itself, and not invading surrounding tissues, were not apt to recur elsewhere after extirpation, if this be done at a very early period. Where, however, sarcoma growing within the eyeball has come to occupy a considerable portion of this space, removal of the eye is nevertheless almost certainly followed by the occurrence of metastases in other organs within a few months.

Speaking of the definition of what constituted a cancerous growth, whether it be of carcinomatous or sarcomatous type, there were, he said, as far as he was aware, only two factors or phenomena, belonging to, characteristic of, and never absent from, any malignant growth of the cancerous group:

I. An incontinent and inordinate development of primitive cellular elements.

II. An irrepressible tendency to invasion of adjacent normal tissues, the second characteristic, however, being a corrolary of the first. Following the process backward, in any given case, a period must necessarily be arrived at when the original growth consisted of a few, and, finally, of two unphysiological elements; that any pathologist could ever hope to recognize these cells, and recognize them as the beginning of a cancerous growth, even if placed in the usual field of his best microscope, was impossible, went without saying, yet from this point of view, it was not difficult to understand the one principle or law determining the nature and beginning of every cancer. There must have been a time when a single cellular element seceded from its environment and began to develop a tissue on its own account; the moment this cell produced another one like itself, the cancer had a *de facto* existence as a separate autonomy. Those two cells, and all the others which sprang from them, had ceased to perform any physiological function, and were parasitic to the rest of the animal economy. He was of the opinion that the explanation of a cancerous growth was to be sought for in physiology rather than in pathology, as a modification of the vital process or life. As far as he was aware, all the morbid growths for which a known cause, in the form of a specific micro organism, existed possessed certain characteristics which absolutely separated them from cancerous growths, *i.e.*, the tendency to inflammation, degeneration, and disintegration ; the opposite was true of cancerous growths, except under special conditions. The speaker instanced a single trachoma nodule of the conjunctiva as being as much a new growth as the largest osteo-sarcoma; the life history of the one was dependent on the presence, or active agency, of certain micro-organisms, the other was the life history of the whole individual with which it was associated. It seemed to him that the new growths so far recognized as being due to micro-organisms, or dependent on them for development, differed so obviously from cancerous growths, that the difference in itself became a strong evidence against the micro-organic theory of cancer development. On the other hand, the differences which existed between the cancerous growths themselves undoubtedly depended on the vital properties in other tissues, from which the growth originated, though he thought they were all undoubtedly subject to the one fundamental law for their origin and subsequent growth.

Dr. Roddick agreed with the other surgeons that cancer was at first a local disease, and could be cured by sufficiently early removal. Local irritation and chronic irritation he considered the two great exciting causes, and any condition which tended to lower the vitality of the tissues, age, and heredity, as strong predisposing causes. He felt that if pathologists could shew that cancer *was* a parasitic disease, it would facilitate the treatment and methods pursued by the surgeons. His own belief inclined towards the parasitic theory, which was borne out by many clinical facts. Speaking of the infectiousness of cancer, he quoted Mr. D'Arcy Power's three or four cases of cancer occurring often in the same house, and one case of his own, where an epithelioma of the hand had been followed by the same form of growth in the face of the nurse in charge. The failure in the inoculation experiments he thought probably due to a faulty method, and instanced Plumner's success in inoculating animals by placing portions of cancerous growths in the vagina. With reference to treatment, he condemned the use of caustics, but considered escharotics as sometimes useful, to complete the cure after operation, the mere application to the surface was very irritating. Dr. Roddick preferred Whitehead's operation for excision of the tongue, but could not agree with Dr.

Shepherd, that in certain cases, removal of the lateral half of the tongue was entirely satisfactory. Nunnelly's operation, consisting of introducing the écraseur through an incision in the middle line of the neck into the floor of the mouth, and passing the chain over the tongue, he recommended when the growth was in the anterior part of the tongue, and good assistance was not available, and felt that septic pneumonia was not so frequent after the écraseur as after the knife, the crushing effectually closing the lymphatics and blood-vessels, and lessening the possibility of absorption. Where the knife and scissors were used, he invariably fed his patients per rectum until granulations had formed, and protected the parts. Removal of all doubtful tumors of the breast he considered imperative, and as the recurrence was usually in the scar and not the muscles, he rarely removed the latter. The removal of the whole upper extremity he considered as not practicable, and advised cases requiring such an operation to be left alone. Immediate removal in cases of local recurrence was strongly recommended, and he cited two cases of four or five consecutive operations for local recurrence, where general infection had not taken place.

Sir William Hingston thought the ground had been pretty well covered by the previous speakers. Speaking of the nature of cancer, he felt disposed to agree with Dr. Adami, as clinical experience had led him to regard it as commonly the result of inflammatory action. He quoted Jonathan Hutchison as being of the same opinion, and cited several cases to bear out his statement, one especially, where, after twenty years, a sinus at the back of the knee had developed malignant action. While not feeling qualified to speak on the parasitic theory, on general principles he thought it likely parasites would shew themselves here, as elsewhere, in the course of disease. Predisposition, Sir William said, he did not understand, and in this disease he did not know what heredity meant. If a patient inherited the tendency from his father, he must in turn have inherited it from someone else, and so on through the generations. If heredity was admitted too fully, it would paralyze all effort. With reference to operations, while admitting that there were cases where less extensive operations might be advocated, he thought partial removal wrong in principle. Cancer of the breast, he operated on early, on the principle that even benign growths take on malignant action in time. He deprecated, however, a hurried resort to the knife in all cases, citing cases where he had declined to operate twenty or thirty years ago, and where the tumor was still harmless. The disease recurred, in his opinion, generally in the cicatrix and skin, less frequently in the muscles, and rarely in the glands of the axilla; it was not, therefore, his practice to remove the glands of the axilla in the first instance unless they were diseased, urging against it that it increased very largely the pain and suffering of the patient and the mortality, while not infrequently œdema of the arm followed, neither did he feel warranted in removing the pectoral muscles unless diseased. Removal of the upper extremity he did not consider it necessary to speak against, as the patient herself would certainly object.

In conclusion, Sir William Hingston referred to the various operations for removal of cancer of the rectum, and claimed for colotomy that it gave as much comfort in the end to the patient as any attempt at removal, as, unhappily, cases were rarely seen while disease was confined to the bowel.

Dr. A. Lapthorn Smith was firmly convinced that cancer was a contagious disease, and had seen at least three cases of cancer occurring in people not related in any way to other cases of cancer, but who had at-

tended cancer cases as nurse or friend. None of the speakers, Dr. Smith said, had laid sufficient stress upon the importance of thoroughly disinfecting the field of operation after removal of diseased tissue. He referred also to the method of Dr. Byrne of New York, for removal of cancer of the uterus, by cutting out small pieces with the galvano-cautery until merely a shell was left, and attributed his success in prolonging the period of recurrence to the destruction of the bacilli in the tissues beyond, by the heat employed. The fact of cancer usually, if not always, commencing in scar tissue he thought shewed that the bacillus of cancer, like that of tubercle, would not attack healthy people or tissues.

Dr. A. Proudfoot advocated the use of caustics in the early stage of epithelioma of the lip, and cited cases to shew its efficacy.

Dr. Shepherd, in replying, said he preferred removal of the whole tongue, unless the disease was well forward. Referring to feeding, he said he had abandoned rectal alimentation, and fed by mouth with a tube and funnel, allowing patient to go about the second day. In reply to Sir W. Hingston, he said he did not believe in the heredity of cancer, but on inherited vulnerability, which increased with age. Of the removal of the upper extremity for cancer involving the axilla, he thought that where the case had progressed so far, operation was useless. Besides, no account had been taken of involvement of the mediastinal glands in these extensive cases, he having under his care three patients suffering from recurrence or continuance of the disease in the retro-sternal glands, all other parts being free, in some cases apparently for 4 years. Locality, he thought, had nothing to do with recurrence, and believed its greater frequency in poor localities was due to delay in resorting to the primary operation, neither did he place much credence in recurrence being due to implantation of cancer cells, as in all modern operations the knife went so wide of the disease that cancer cells were not disturbed. The speaker thought too many benign cases were reported as malignant, hence the success of caustics in the hands of quacks, and would not admit of the diagnosis of malignancy apart from a careful microscopic examination, caustics only postponed the knife until it was too late, and he only used them in cancer of the cheek and nose, where thorough scraping and the actual cautery proved beneficial.

Dr. Bell, in replying to Sir William Hingston, said if we assumed that cancer was primarily a local disease, spreading by infiltration of surrounding tissues, by the lymphatics, and only later by metastasis, the line of treatment was clearly indicated; with metastatic growths in other parts of the body, operation for cure was obviously futile. These statements accepted as facts, the logical inference was early, wide, and complete removal, regardless of deformity, or inability to close the wound. Recurrence in the scar shewed insufficient removal at first. As far as his experience went, he was surprised at Sir William Hingston's statement about recurrence being rarely in the axilla and most frequently in the scar, his experience being that it was generally in the tissues of the axilla. It being utterly impossible to determine before operation that the axillary glands were not involved, the rule that the axillary glands, especially the lymphatic tissues, should be removed, was a good one. The speaker thought recurrence in the scar was explained by the fact, that in advanced disease, infiltration took place down to the bony chest wall, and that it might be impossible to remove tissues deeply enough to remove the whole disease, hence his reason for removing all the tissues down to the chest wall, below the border of the pectoralis magor, and the fascia covering the muscle. The pectoral muscles he did not recommend to be removed unless infil-

trated, or for more thorough removal of diseased lymphatic tissues. When advanced cases presented for operation, there was no choice, the operation, if undertaken, was for removal of *all* the disease, not part, and to do this, it might be necessary to remove portions, if not all, of one or both muscles, and going still further, in dissecting out the axilla, often of infiltrated glands, from the very walls of vein and artery, no surgeon could feel that he had removed all the disease, and it was just in these cases that he advocated removal of the upper extremity, certain, at least, of removing all diseased tissues as far as the first rib. The œdema and swelling mentioned by Sir W. Hingston was not, in his opinion, due to the dissection of the axilla, but, coming on as it did later on, was due to new cancerous masses forming in the axilla about the vessels and pressing on the axillary vein. He believed cases of extension to the mediastinal glands were rare in patients presenting themselves for primary operation, and of course could not be cured by any operation. Escharotics, he thought, had no place in the treatment of cancer except in the cases mentioned by Drs. Roddick and Shepherd.

DR. ARMSTRONG thought that the methods of operation had been pretty well worked out, and understood for some time this information could be found in any standard text-book or journal. His idea, however, had been to establish the fact that cancer was a local disease, and he therefore sought to bring out evidence, or new symptoms, which would enable cancer to be recognized at an earlier stage than had been the custom in the past, to secure earlier operation and consequent permanent cure. The discussion had gone a little outside the ground he intended, but the fact had been established that cancer was primarily a local disease; the early symptoms could doubtlessly be gradually wiped out. The time had gone by for successful results in a case presenting for operation for a cancer of the breast conforming to the description of the text-books. The speaker thought Sir William Hingston took a serious responsibility in advising the leaving alone of tumors of the breast in women approaching the climacteric; they were easily enucleated, and, if left alone, might receive an injury, change their characters and become malignant.

Stated Meeting, January 7th, 1896.

A. D. BLACKADER, M.D., President, in the chair.

CASES:—REMOVAL OF CYST FROM BRAIN FOR RELIEF OF JACKSONIAN EPILEPSY.

Patient shewn by Dr. Armstrong; report will be published later. Dr. Finley gave the clinical history, the boy having been in his ward for some time. Briefly, the boy was admitted suffering from epileptic seizures, of which he had several the first few days after admission; they then intermitted for a month. In the attack witnessed by Dr. Finley, the head and eyes alone were affected: there was no loss of consciousness. Lateral deviation of head and eyes to opposite side, rapid motions of eyelids, more marked in right side. In attacks witnessed by Dr. Byers, the movements spread to right arm and the leg. There was no question of localization, as depression marked the point for trephining. With reference to localization of area, Dr. Finley found that the depression corresponded to the supra-marginal convolutions and angular gyrus. During the

operation, electric stimulation of the cortex was negative, so was unable to obtain confirmatory evidence of localization. The speaker cited a similar case reported by Ross, of Manchester, Eng., with depression in same locality, where symptoms were similar and operation successful. Replying to Dr. T. Wesley Mills, Dr. Finley said the electrodes were about one-eighth of an inch apart, and the current too strong to be borne on the lips.

PRIMARY CANCER OF THE LIVER.

Clinical notes by Dr. W. F. Hamilton; pathological report by Dr. C. F. Martin. (will be published next month.)

PAPER ON THE TREATMENT OF INEBRIETY AS A DISEASE.

Dr. Oliver C. Edwards, Ottawa, read the paper, an abstract of which was published last month (p. 257 CANADA MEDICAL RECORD, Vol. XXIV, No. 6, March, 1896) when

Dr. Burgess said he agreed with Dr. Edwards that inebriety was a disease, but went further, and considered it a disease long before the stage at which Dr. Edwards set it down as such. Its most prominent symptom was lack of will power, and its victims usually the inheritors of unstable nervous organizations. As regarded the gold treatment, the same results could be obtained by cutting off the liquor supply and building up the system generally. Occasionally, the effect was permanent, but usually only temporary.

Dr. James Stewart said he had no faith in this treatment more than any other. A certain percentage of cures were effected by making a powerful impression on the nerve centres. Hypnotism had been equally as good,—the disease was due to paralyzed control.

Dr. J. B. McConnell agreed with Dr. Burgess in looking on the inebriate as a neurotic. He himself, in a paper read before the Society a couple of years previously, had reported identical results from the use of strychnine.

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Editorial.

MEDICAL FACULTY UNIVERSITY OF BISHOP'S COLLEGE.

The Winter Session of the above Faculty of Medicine closed on the 14th of March. The week commencing 16th and terminating on the 21st was allowed the students for review. The examinations began on the 30th and closed on the 4th of April. Upon the whole, the Session may be looked upon as the most successful in its history—which is satisfactory—as it terminated the first quarter of a century of its existence. The number of First Year students who enregistered their names exceeds that of any previous year—and the total number enregistered was one hundred and one, an increase of forty per cent. over the previous year. The most interesting event of the Session was the affiliation of the Dental College of the Province of Quebec with the University, as the students of this College will take their medical lectures at Bishop's. There will, in the coming years, be a notable increase in attendance upon the lectures on the Primary branches. It will also tend to make known the special advantages of this Faculty of Medicine.

The Annual Medical Convocation of the University took place in the Synod Hall, Montreal, on the 8th of April, and was very largely attended. On the platform were Chancellor Heneker, Principal Adams, Acting Chief Justice Tait, and J. H. R. Molson, Vice-Chancellor of McGill University, and others. Special interest attached to this Convocation, as it was the first one at which the

degree of D.D.S. (Doctor of Dental Surgery) was conferred. Those who received this degree (in course) were the lecturers in the Dental College. Dr. F. W. Campbell, Dean of the Medical Faculty, presented W. Geo. Beers, Dean of the Dental College, for the degree, which, having been conferred, Dr. Beers presented the following gentlemen, who likewise received the degree (in course) of D.D.S., viz.: Charles Brewster, J. A. Bazin, S. J. Andres, S. Globensky, G. W. Lovejoy, L. J. B. Leblanc, J. G. Gardener, J. H. Bourdon, J. H. Springle (*ad eundem*), W. J. Giles (*ad eundem*), C. Coleman (*ad eundem*), F. A. Stevenson (*ad eundem*), A. Globensky, L. Franchere, E. Dubois.

The following members of the Medical Faculty received the degree of C.M., M.D., *ad eundem:* H. L. Reddy, G. T. Ross, and W. Grant Stewart.

The Dean, Dr. F. W. Campbell, read the following announcement as the result of the Session's work :—

There are one hundred and one enregistered students on the roll this year, which is an increase of forty over last year's attendance.

Of these students, which comprise both medical and dental, eighty-six came from the Province of Quebec, seven came from Jamaica, W.I., three came from the United States, one came from Hayti, W.I., one came from New Brunswick, one came from Scotland, one came from Ireland.

The following are the results of the examinations which were held during the week beginning 23rd March last, the names being arranged alphabetically :—

Passed in *Botany.*

A. N. Gould, J. A. Hamilton, H. Lightstone, J. A. L. Harris, T. H. Jackson, C. A. McDougall, John McIntyre, J. A. Paddyfoot R. M. Stimpson, E. L. Sutherland.

Passed in *Physiology*, Second Year.

D. J. Berwick, Joseph Barsalou, McD. Ford, Miss Minnie Gomery, John McIntyre, W. S. McLaren, J. A. Munro, R. M. Sullivan.

Passed in *Chemistry*, Second Year.

D. J. Berwick, J. S. Browne, Joseph Barsalou, H. C. Dumont, John Francis, A. N. Gould, Miss M. Gomery, Miss Hansford, J. A. Munroe, J. K. Macdonald, John McIntyre, R. M. Sullivan.

Passed in *Practical Chemistry.*

H. C. Dumont, John Francis, A. N. Gould, C. E. Goltman, Miss M. Gomery, T. H. Jackson, C. Lemieux, John McIntyre, A. H. Newman, R. M. Stimpson.

Passed in *Materia Medica,* Third Year.

J. S. Browne, W. M. Cass, McD. Ford, John Francis, Miss M. Gomery, Miss Hansford, C. A. McDougall, John McIntyre.

Passed in *Anatomy,* Second Year.

D. J. Berwick, W. M. Cass, C. A. Fortin, Miss M. Gomery, R. H. Meikle, John McIntyre.

FINAL SUBJECTS.

Passed in *Medical Jurisprudence.*

Wm. Cass, C. A. Fortin, Miss Lorigan, Miss Macdonald, R. H. Meikle, W. Opzoomer, W. J. Webb.

Passed in *Diseases of Children,* Third Year.

W. M. Cass, C. A. Fortin, Miss Lorigan, Miss Macdonald, W. Opzoomer, W. Rea.

Passed in *Gynæcology,* Third Year.

C. A. Fortin, Miss Macdonald, Miss Lorigan.

Passed in *Pathology.*

W. M. Cass, C. A. Fortin, Miss Lorigan, Miss Macdonald, Wm. Opzoomer.

The following passed all the primary and final subjects entitling them to the degree of C.M., M.D., of this University:—

George Hall, Montreal; Ernest J. Addison, Latrobe, Tasmania; Miss Mary Fyfe, Boston, Mass.; James J. Benny, Daillebout, Que. (All first-class honors).

PRIZE WINNERS.

Wood Gold Medal—George Hall.

Chancellor's Prize—Ernest J. Addison.

David Silver Medal (this is awarded to two students owing to the introduction of sessional examinations)—C. A. Fortin and Miss M. Gomery.

Senior Dissector's Prize—Miss M. Gomery.

Junior Dissector's Prize—E. L. Sutherland.

Addresses were delivered, at the close, by Principal Adams Judge Tait, and Vice-Chancellor Molson, of McGill University.

REPORT OF THE COMMITTEE ON INTER-PROVINCIAL REGISTRATION.

The following report has been received by us from Dr. F. N. G. Starr, of 421 College street, Toronto, General Secretary of the Canadian Medical Association :—

"The Committee appointed at the last meeting to look into "the question of inter-provincial registration would beg to express "their regret that, by the system which at present obtains, a graduate "in medicine, entitled to practise in one Province, is not free to "exercise his functions in all the Provinces of this large but sparsely "settled Dominion;

"That this condition of things prevents the names of medical "practitioners in this Dominion being placed on the British register, "becoming thereby British practitioners, which the Council of "Medical Education of Great Britain has more than once signified "its willingness to grant;

"That with this end in view it is therefore most desirable "that there should be a uniform standard of matriculation, a "uniform standard of medical education, and a uniform method of "examination for the whole Dominion.

"That to effect this purpose, the Secretary be instructed to "communicate with the various Provincial Councils, before their "next meeting, asking that each Council discuss the question, and, "if possible, appoint one or more delegates to a Dominion Com-"mittee for the purpose of adjusting a suitable curriculum and "carrying out the suggestions herein contained, and that such Com-"mittee be requested to forward their finding to each of the Pro-"vincial Councils and to the Secretary of this Association before "the next annual meeting."

"THE HAPPY MEDIUM."

We are in receipt of a handsome illustrated brochure, issued by the *Medical Fortnightly*, of St. Louis, which reflects great credit on that enterprising journal. The book contains thirty-two pages, incased in a unique embossed cover, and twenty-five half-tone portraits of its staff, including Dr. Frank Parsons Norbury, Managing Editor; Drs. Hubert Work and T. A. Hopkins, Associates; Charles Wood Fassett, Secretary, and twenty-one department editors. The dedication of the work conveys its purpose; it says: "To those friends, patrons and subscribers, who are interested in the *personnel* of the *Fortnightly* staff, this little book is respectfully dedicated."

In consequence of the death of the editor of the *Annals of Ophthalmology and Otology*, the conduct of that quarterly periodical has passed into the hands of Dr. Casey Wood, who will have special charge of the ophthalmological department, and Dr. T. Melville Hardie, who will act as editor of the department of Otology and Laryngology.

Dr. Wood's many friends in Montreal will heartily congratulate him on this elevation to the editorial chair, and we can foreshadow a renewed era of success for this journal, in consequence of its being placed in charge of one possessing the well-known literary ability and energy of our much esteemed friend.

Personals.

Dr. R. C. Blackmer (Bishop's College, 1884), Professor of Legal Medicine in the Barney Medical College, editor of *The General Practitioner*, has been appointed State medical examiner for the Royal Arcanum in Missouri.

Drs. Wm. Gardner and F. J. Shepherd have left for a holiday in Europe and Africa; besides visiting Cairo, Alexandria, and ascending the Nile they are to be present at the revival of the ancient Olympian Contests at Athens.

A. J. Richer, C.M., M.D. Bishop's 1892, has been appointed lecturer on Physiology in the Faculty of Medicine, University of Bishop's College.

Dr. Drummond, of our editorial staff, has gone for a trip to Jamaica, intending to be absent some three or four weeks.

At the January examinations in Edinburgh, for the diploma of L.R.C.P.E., L.R.C.S.E., and L.F.P. and S., Glasgow, 137 candidates presented themselves; of these, 65 were successful. Among them we find the name of Dr. Thomas Bannerman (M.D. Bishop's, 1895).

Dr. Wolfred Nelson, F.R.G.S. (M.D. Bishop's, 1872), at present living in New York, has just received the decoration of the cross of a Commander-in-Ordinary of the Royal Order of Isabella the Catholic. Dr. Nelson was informed of the honor by the Spanish Minister at Washington. Dr. Nelson lived and travelled in his professional capacity for eight years in Spanish America, Mexico, Guatemala, Nicaragua, Costa Rico, Columbia and Venezuela, and nearly all the West India Islands. He has written much on all these countries from a socialistic and climatological standpoint. We congratulate the Doctor on this recognition of his labors.

Dr. McPhail, Professor of Pathology in Bishop's College, has gone to Jamaica with Mr. G. B. Burland, who we regret to learn is far from well.

Dr. Saunders of Bedford, Que., was in Montreal the first week in March.

Book Reviews.

A Treatise on the Medical and Surgical Diseases of Infancy and Childhood. By J. Lewis Smith, M.D., Clinical Professor of Diseases of Children, Bellevue Hospital Medical College, Physician to Charity Hospital, etc., etc. Eighth edition: thoroughly revised and greatly enlarged; with two hundred and seventy-three illustrations and four plates. Lea Bros. & Co., 708 Sansom street, Philadelphia; 111 Fifth avenue, New York.

The fact that this important work has reached an eighth edition attests to its great popularity as a standard text-book and work of reference in this large department of medical work. The book has been thoroughly revised, and all recent advances in etiology, pathology and therapeutics have been incorporated in the various chapters, thus necessitating the re-writing of many of the chapters and the addition of new ones. It also contains five times as many engravings as its predecessor, besides several full page plates. There are nearly a thousand pages, printed with somewhat smaller type than in the ordinary text-book, which has permitted a thorough detailed treatment of the various subjects. Part I. contains much that is interesting and of special importance to be versed in by those engaged in pediatric practice, such as the anatomy and physiology of infancy and childhood, care of the mother in pregnancy, wet-nursing, modification of milk in consequence of diet, age, mental impressions, menstruation, pregnancy, medicines, and other causes, and rules in regard to lactation, artificial feeding, bathing, clothing, sleep, exercise, etc.

A number of valuable tables are given, showing the analysis of human and cow's milk, and of a number of artificial foods, which have been in general use, and pointing out the fact that they all differ widely from human milk, except those consisting largely or wholly of cow's milk, and this, practically, is what has to be selected as being the most available nourishment and the nearest approach to and substitute for human milk, all points in regard to its source, quality, amount, freedom from micro-organisms, Pasteurization, predigestion, combining it with dextrinized barley-gruel, etc., are fully considered. The chapter on the diagnosis of infantile diseases is very complete and instructive. The various diseases are grouped and considered under the headings: diseases of the newly born; constitutional diseases; diathetic eruptive fevers, and other general diseases; malformation and deformities; diseases of the blood; local diseases; diseases of the cerebro-spinal system, digestive apparatus, respiratory and circulatory systems, genito-urinary organs and diseases of the skin. The scope and comprehensiveness and, withal, condensation which characterizes this authoritative work, may be seen in the article on scorbutus, a subject on which there has been much discussion and light thrown by the investigations of Barlow and others. Yet we can get the cream of all the writings on the subject in the page and a half devoted to it here.

In this edition the subject of surgical diseases of children has been added, the articles coming from the pen of Dr. Stephen Smith, author of Smith's Operative Surgery.

We can cordially recommend this standard work to our readers as a reliable, practical guide, representing fully all the recent advances in pediatry.

A Manual of Medical Jurisprudence and Toxicology. By Henry C. Chapman, M.D., Professor of Institution of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc., etc. Second edition, revised: with fifty-five illustrations and three plates in colors. Published by W. B. Saunders, 925 Walnut street, Philadelphia.

The first edition of this work was published in 1892, and, with the exception of several new figures and tables and brief references to the author's personal experience as coroner's physician to the city of Philadelphia, the book is unchanged. It is published as one of Saunder's new aid series of manuals, of which seven are now ready, and a number of others are in preparation for early publication. In this volume, as in the others, the object is to produce a treatise which will represent the essentials of the subject under treatment in a condensed form for practitioners and students, so that he can, with a minimum of time and reading, acquire, or replenish his memory with the more important details of the subject on which information is sought.

Medical Jurisprudence is considered in fourteen chapters, and Toxicology in two. There is a complete index, which enables one to find what he wants readily. All the subjects usually included in a work of this kind are dealt with in a masterly manner, and, in regard to such topics as the signs of death, the munner of making a post mortem examination in medico-legal cases, conduct of medical witnesses in court, medico-legal definition of wounds, foeticide and infanticide, legitimacy, evidence of poisoning and the detection of poisons. All that is ordinarily required of the general practitioner can be learned from the clear and concise descriptions and directions in this practical volume.

In regard to methods of resuscitation in drowning, chloroform, poisoning, etc., we find no mention of Laborde's method of rhythmical traction of the tongue which has received authoritative endorsation as a valuable aid in restoring the respiratory functions.

We can recommend this work to our readers as a safe guide in this special department of medicines in which the general practitioner is but seldom called upon to act, and therefore requires such concrete articles for ready posting.

Diagnosis and Treatment of Diseases of the Rectum, Anus, and Contiguous Textures. Designed for Practitioners and Students. By S. G. Grant, M.D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges; Lecturer on Intestinal Diseases in the Scarritt Training-School for Nurses; Rectal and Anal Surgeon to All-Saints, German, Scarritt's Hospital for Women, and Kansas City, Fort Scott, and Memphis Railroad Hospitals, to East-Side Free Dispensary, and to Children's and Orphans' Home, Kansas City, Mo.; Member of the American Medical Association, National Association of Railway-Surgeons, the Mississippi Valley Medical, the Missouri Valley Medical, and the Missouri and Kansas State Medical Associations, etc., etc. With two chapters on "Cancer" and "Colotomy" by Herbert William Allingham, F.R.C.S.Eng., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. Mark's Hospital for Diseases of the Rectum; Surgical Tutor to St. George's Hospital, etc., etc., London. One

volume, royal octavo, 400 pages. Illustrated with 16 full-page chromo-lithographic plates and 115 wood-engravings in text. Extra cloth, $3.50 net; half-Russia, gilt top, $4.50 net. The F. A. Davis Co., publishers, 1914 and 1916 Cherry street, Philadelphia; 117 W. Forty-second street, New York; 9 Lakeside Building, Chicago.

Dr. Grant has, in this volume, given us a work which is timely and welcome, as in it we find a source of accurate information on a subject that deserves to be removed from the realms of charlatinism, and placed on a scientific basis, as the diseases of these parts are among the most annoying, and hitherto have too frequently been referred for relief to the advertising quack and peripatetic charlatan. In this book the medical and surgical affections are fully considered, and so classified that information on any point can be got without any arduous searching. The book is very fully illustrated with woodcuts and colored photogravures, the latter mostly full page and exceptionally fine, the coloring conforming to the normal appearance of the conditions depicted in the living subject. They, moreover, are all original, most of them from photographs of cases of the author and Dr. Allingham, of St. Mark's Hospital, London, who has written some of the chapters.

The opening chapter gives the anatomy and physiology of the rectum and anus. Chapter III. is devoted to symptomatology, and IV. to methods of examination. The chapters are not lengthy, but are full in information, especially in regard to diagnosis; and treatment at the end of many, illustrative cases are described. Among some we found exceedingly interesting are: the relation of pulmonary tuberculosis to fistula, in which guidance is given in regard to what cases should be operated on; stricture of the rectum, which produces so much disturbance in the circulatory and nervous systems, and causes such a long train of misleading symptoms. The chapter on hæmorrhoids is full; he states that there is no disease within the whole range of medical literature which has a more ancient history and claims a hoarier antiquity. Among the applications we do not see cocaine mentioned, which is of undoubted value as an addition to unguents used in painful external hæmorrhoids. The injection method of treatment, which was for a long time employed by quacks, and with much success, is discussed, and the limited sphere of its advisable application pointed out and minute directions given.

The chapters on pruritis, diarrhœa and constipation are instructive. In the latter affections, his non-medical methods, consisting of twelve items, has given him admirable results—it consists of divulsion, massage, electricity, and certain rules for diet, bathing, exercise, etc.

Chapter XXV., auto-infections from the intestinal canal, is one of the most interesting in the book—the bacillus coli cummunis looms up here as a "king of disturbers", and its influence is discussed fully in the text and in letters received by the author from Drs. Roswell Park, and Dr. Welch, of Baltimore. Neuralgia of the rectum may be readily recognized after reading the article thereon.

An important chapter is that on Colotomy, by Dr. Herbert Wm. Allingham, F.R.C.S. Eng.

The book is well printed on good paper and neatly bound, and will be an acquisition to the physician's library that will enable him to solve many every-day problems which will repay him manifold for the small outlay required for its possession.

A Text-Book Upon the Pathogenic Bacteria for Students of Medicine and Physicians. By Joseph McFarland, M.D., Demonstrator of Pathological Histology and Lecturer on Bacteriology in the Medical Department of Pennsylvania, etc. Philadelphia: W. B. Saunders.

There is growing up in the United States a class of workers, chiefly younger men, who are silently winning for that country a proper place in the scientific world,—men content to set down what they have seen, and leave to their elders the lucrative and useless task of collaborating upon "systems."

Dr. McFarland apparently belongs to this class, for the book reveals that the author speaks of things of which he has knowledge. It is not so very long since it was found possible to include the whole duty of the bacteriologist within the compass of a very moderate-sized volume. The growth and movement of the subject soon made this attempt impossible. Then, in the evolution of books, writers addressed at the same time students of varying degrees of ignorance and teachers of different grades in experience and knowledge; as a result, students were led to believe that they could conduct this form of research, as Michael Foster said of physiological experiments, "with a stick and a piece of string," while teachers found only futility and barrenness. Now nearly everyone is agreed that you can neither learn nor teach bacteriology out of a book, yet, in so far as this can be done, the present work serves admirably.

The author has chosen wisely to restrict his writing to so much as could fairly be covered in a work of reasonable compass. The subject has grown too large to be dealt with as a whole. He deals with the pathogenic bacteria alone, and, after taking thought, decided to omit all whose deleterious action is questionable. Yet he admits forms allied with the spirilla of cholera, for example, though they have no special significance. This of course does not fall within the rigid lines of any classification, but no one cares for "system" any more if only a book is useful. It may as well be said at once that the book is very useful to students of medicine and to the practitioner who aims to learn and profit by what bacteriology has accomplished.

The whole subject is so new and fascinating, no writer can refrain from commencing at the beginning of things, just like the president of an annual meeting, who either repeats the whole story of medical progress or the advance that has been made within the year. The present writer surely goes to bottom when he takes the Hebrew legend of the origin of things as his starting point. But the story is always interesting, and is again clearly told to any who can break through the first sentence, "The unrecognized inception of this department of science had its latent germs in the thought of antiquity."

The classification and biology of bacteria is adequately set down and the problems of immunity and susceptibility are discussed with real ability. Then follows a full account of the devices and processes incident to the business of bacteriology. The body of the book is given over to a description of the various organisms which produce pathologic conditions, but to deal with it in detail would be to write the book again.

The book is not highly decorative; yet the illustrations are useful, and errors of type are of no importance in text-books which, in a very few years, must pass into new editions or altogether disappear.

Annual of the Universal Medical Sciences. Edited by Chas. E. Sajous, M.D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps.

The issue of 1895, in five convenient volumes, is a splendid production, and exceeds in excellence and completeness any previous edition of this great and invaluable work. The progress of the general sanitary sciences throughout the world is briefly, but clearly, reported, with references to the best literature on the subjects treated. All branhes orj medicine and surgery are considered, briefly oi at lengh as, their importance warrants or demands.

The latest facts and theories regarding obscure diseases are stated or logically discussed. The editor, for example, when dealing with tumors, gives the names of the advocates and opponents of the parasitic or infectious nature of malignant neoplasms, and reference is made to any literature of importance bearing on the subject of etiology. Continuing with malignant neoplasms, the latest treatment is given, and statistics gathered from the most reliable sources, to show the results obtained by the various methods of treatment. The reference index this year is, we think, perfection, for it is simple, convenient and complete, a great improvement on the index of the older editions. If one will take the trouble to examine into the character and scope of the Annual, he is sure to appreciate it. The men who are in charge of the various sections are specially well fitted for the work allotted to them, They are men of skill and wide experience, and are recognized authorities on the particular branch of medicine or surgery on which they write.

Much credit is also due to the publishers (F. A. Davis & Co., Philadelphia), for to publish every year such an extensive work must indeed be a great undertaking. The Annual has come to be a standard reference book, and is most valuable as a means of looking up any subject preliminary to writing upon it. In its present form, to bring the different departments within the space allotted to them, great condensation is often necessary, but simply as a reference book no medical library is complete without it.

Transactions of the College of Physicians of Philadelphia. Third Series, Vol. XVII.

This is a volume of 171 pages, representing all the papers read before the College from January, 1895, to the end of the year, many of which are of exceeding interest. A list of the officers and past presidents is given, and a complete list of the Fellows and Associate Fellows, corresponding members and necrological list. The William Jenks' prize essay of the College of Physicians of Philadelphia, consisting of 179 pages, is bound with the Transactions. The prize was awarded to A. Brothers, B.S., M.D., of New York city, who writes on *Infantile Mortality during Childbirth, and its Prevention.* This is the second time this prize of five hundred dollars has been awarded. There were six competitors. The essay is an exhaustive one, and besides giving a careful birds'-eye view of the entire subject, points out all the advances made in recent years in the interest of the unborn child, previous to labor, during the critical hours of active labor and in the earliest period of life succeeding labor. It is a valuable contribution, worthy of being "read and studied" by all who undertake the responsibilities of accoucheurs.

The Transactions are edited by Gwelym G. Davis, Philadelphia, and the prize essay by P. Blakiston, Son & Co., 1012 Walnut street, Philadelphia.

Transactions of the American Pediatric Society, seventh session, held at Virginia Hot Springs, May 27, 28 and 29, 1895. Edited by Floyd M. Crandall, M.D., New York. Vol. VII, reprinted from the Archives of Pediatrics.

This book is neatly bound in cloth, and contains a list of the past presidents, the officers for 1895-96, the council and membership, the minutes, president's address, and the papers read at this meeting, and the discussions. Forwarded by the secretary, Dr. Samuel S. Adams, Washington, D.C.

Electricity in Electro-Therapeutics. By Edwin Houston, Ph.D., and A. E. Kennedy, Sc.D. Publishers, The W. J. Johnston Company, 253 Broadway, New York.

This volume is one of the elementary electro-technical series, ten in number, written by the same authors, and sold at one dollar a volume, and is intended to meet the growing demand of the general public as well as the medical practitioners, for "reliable information respecting such matters in the physics of electricity applied to electro-therapeutics as can be readily understood by those not specially trained in electro-technics." The fundamental principles of electricity and magnetism as employed in electro-therapeutics are made clear, and stated in language devoid of much technical nomenclature. It is profusely illustrated, showing the construction and adjustment of the various kinds of apparatus employed directly or indirectly in therapeutics, and the descriptions follow the circuital method, all the phenomena and laws of electricity or magnetism being considered as pertaining either to the electro-static, the electric, or the magnetic circuit. The contents of this little volume, carefully studied, will impart a good groundwork of knowledge in the application of electricity, and is representative of recent advances in this most attractive and important branch of science.

A Manual of the Practice of Medicine. By George Roe Lockwood, M.D., Professor of Practice in the Woman's Medical College of the New York Infirmary; Attending Physician to the Colored Hospital and to the City Hospital; Pathologist to the French Hospital, etc., etc.; with 75 illustrations in the text and 22 full page colored plates. Philadelphia, W. B. Saunders, 925 Walnut street, 1896.

The aim of the author has been to present the essential facts and principles of the Practice of Medicine in a terse and concise form. To a very large extent this has been successfully accomplished, and the result has been that the book is one to which the busy practitioner can refer with a reasonable certainty of obtaining just the kind of information which will prove useful to him. The admirable classification of Dr. Osler has been adopted, and we note that he refers frequently to him as his authority. The treatment is up to date, and he writes as if he had full faith in the remedies which he named. To those who desire an up-to-date book, and at a reasonable price, we can honestly commend this volume.

Pamphlets Received.

Evisceration of the Eyeball. By L. Webster Fox, M.D., Philadelphia.

Sarcoma of the Choriod, Glioma of the Retina, and new formed Blood vessels in the vitreous. By the same author.

Burns of the Cornea, Electric Light, Explosion, causing temporary blindness, Traumatic injuries to the eyes, Hypopyon. By the same author.

Sleep in its relations to Diseases of the Skin. By L. Duncan Bulkley, A.M., M.D., New York.

Laryngeal Neoplasms. By Walter F. Chappell, M.D., M.R.C.S. Eng., New York.

Six Years Experience in Abdominal and Pelvic Surgery. By A. Lapthorn Smith, B.A., M.D., M.R.C.S. Eng., Montreal.

PUBLISHERS DEPARTMENT.

SANMETTO IN RETENTION OF URINE.

Have given Sanmetto a good trial, and find it one of the best preparations I have ever used. Case No. 1, John D., aged 70, Ireland, has been troubled for a long time, unable to pass his urine. After treatment with other remedies with no benefit, placed him on Sanmetto, with following results: The first day the pus increased in quantity, on second day diminished, by fourth day could urinate himself, before this he had to be catheterized. Dose: one drachm every four hours for the first three days, afterwards one drachm three times a day. Discharged in ten days, a complete cure of cystitis.

Bayonne, N.J.

A. C. FORMAN, M.D.,
House Phys. Bayonne Hospt.

A MAGAZINE'S INFLUENCE.

The enormous circulation of such a magazine as *The Ladies' Home Journal* can, in a sense, be understood when it is said that during the last six months of 1895 there were printed, sold and circulated over four million copies—(in exact figures 4,058,891). Figures such as these give one some idea of the influence which may be exerted by even a single one of the modern magazines.

LITTELL'S LIVING AGE.

The March issues *of Littell's Living Age* give the usual feast of good things, brought from the field of history, biography, discovery, travel, romance and poetry. Among the many valuable papers which appear in these numbers may be mentioned "John Stuart Blackie," by A. H. Miller; "Our Limited Vision and the New Photography," from the *London Lancet*; "Reflex Action, Instinct and Reason," by G. Archdall Reid; "A Sister-in-Law of Mary Queen of Scots," from *Blackwood*; "The Two Dumas," by C. E. Meitkerke; "The Evolution of Editors," by Leslie Stephen; and "Florian," by Augustus Manston. LITTELL & Co., Boston, are the publishers.

APPLETONS' POPULAR SCIENCE MONTHLY FOR MARCH, 1896.

Mr. David A. Wells continues his account of "Taxation in Literature and History" in *Appletons' Popular Science Monthly* for March, giving methods employed for raising revenue in ancient Greece and Rome. Under the title "The Failure of Scientific Materialism" this doctrine is sharply attacked by Prof. Wilhelm Ostwald, of Leipsic, who affirms that it should be replaced by a theory based on energy. Herbert Spencer contributes to this number a chapter on the "Painter" in his series on Professional Institutions. Prof. E. W. Hilgard shows that the salts in our alkali lands consist largely of plant food, and tells what means may be used to neutralize the harmful constituents. "Exercise as a Remedy" is discussed by Henry Ling Taylor, M.D., who shows how potent a curative agent exercise may be when carefully prescribed and how injurious it may be in some cases. Prof. William R. Newbold writes on "Normal and Heightened Suggestibility," giving some of his experience with hypnotic patients. James Rodway describes in a bright, chatty manner "The Coming of the Rains in Guiana." A scientific examination of the problems of "Acclimatization" and their bearing on the future of tropical regions is contributed by Prof. William Z. Ripley. Among illustrated articles are an account of an archæologic find by Prof. C. F. Holder under the title "The Ancient Islanders of California," and "The Story of a Monkey," by M. Dybowski. Prof. W. K. Brooks concludes his "Study of Inheritance" in this number; Prof. M. V. O'Shea contributes a thoughtful paper on "Educational Values in the Elementary School," dealing with the question, What studies are of most worth? and Gifford Le Clear corrects a misconception as to certain measurements of "The Velocity of Electricity." "A Sketch and Portrait" are given this month of the Ohio scientist William Starling Sullivant, who was acknowledged as the greatest American authority on mosses. "The Nature of Liberty" and "The New Natural History" are discussed in the Editor's Table, and the other departments are well filled with scientific brevities. New York: D. Appleton & Company. Fifty cents a number, $5 a year.