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THE

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THE PÉAN-SEGOND OPERATION (VAGINAL TOTAL EXTIRPATION OF THE UTERUS AND ADNEXA) IN SUPPURATIVE DISEASES OF THE FEMALE PELVIS.

BY GEORGE H. ROHÉ, M.D.,
President of the American Association of Obstetricians and Gynæcologists.

THE proposition first made by Péan, that the uterus should be removed together with the appendages in case of suppurative disease in the pelvis, came like a shock to surgeons, even to those who are considered radical in their opinions regarding operation in inflammatory diseases of the uterine appendages. Operators who performed abdominal section and ablation of the ovaries upon indications considered totally unjustifiable by many were taken aback by a proposition so revolutionary. And yet the foremost advocate of total extirpation in the United States is one

who is known as a leader among the conservative operators. There seems, then, something in this operation that appeals to those of conservative tendencies. At first thought this would appear somewhat paradoxical, but upon further consideration it becomes evident that the operation is really conservative; for true conservatism does not consist, as some seem to think, in incompletely doing a large number of unnecessary operations, but in thoroughly doing those operations that are necessary. More careful diagnosis, more judicious consideration of the pathology and causation, and greater familiarity with the clinical history of diseases of the female pelvic organs, will result naturally in limiting the sphere of operative intervention in the course of these diseases.

There is at the present day little doubt that the large majority of cases of tubal and ovarian suppuration depend primarily upon gonorrhœal infection of the vaginal and uterine mucosa, and these cases are generally found associated with suppurative endometrial inflammation, no matter how remote the date of the original infection. It is, perhaps, possible that a gonorrhœal endometritis may be cured by properly directed local treatment, but few will be willing to admit that this is a common occurrence, even in cases where the specific inflammation is limited to the endometrium. In cases, on the other hand, where the tubes and ovaries and the pelvic peritoneum are involved, the restoration of the uterine mucosa alone is not considered probable. Hence advanced gynæcologists have rightly abandoned topical treatment of the interior of the uterus in cases where the adnexa are the seat of suppurative inflammation. Many of you know likewise, from experience, the barrenness of results of such intra-uterine therapy after the removal of the appendages. How many cases can you not recall where dilatation, curetting, and antiseptic applications, even destructive cauterizations, failed to change permanently the purulent character of the discharges and arrest the hæmorrhages from the uterus after ablation of the adnexa. In these cases the uterus itself must be regarded as a *corpus delicti;* not only troublesome to the medical attendant, but a source of anxiety, of complaint, and even of danger, to the patient, for there can be no doubt of the greater liability of a womb in such a morbid condition to septic or tubercular infection and cancerous degeneration.

In cases of puerperal endometritis where there is a tubal involvement, the removal of all the affected organs would seem to be indicated. Indeed, in these cases the uterus is the source of greater danger from the large surface infected. From some personal experience, not altogether of a consoling character, I am led to the opinion that the removal of suppurating tubes and ovaries in a puerperal case is of little avail unless the uterus be removed at the same time.

The objection has been made that this operation is a serious one; that, when successful, it deprives the woman of organs which characterize her sexually; that, in short, while a woman may lose her ovaries and still remain a woman, yet, when the uterus is also removed, she is entirely unsexed and unnecessarily mutilated. Much of this sort of argument seems to me purely theoretical and unwarranted by facts, but its presumptively authoritative character and constant asservation give it some dignity and standing. It would seem, however, that a living mother and housewife, even though deprived of uterus, ovaries, and tubes, is more desirable than a dead woman with these organs in her pelvis. It may be said that the alternative here suggested is exaggerated, but those who have practised much obstetrics, and have verified causes of death in the puerperium by personal autopsies, know well that the conditions are not overdrawn.

In cases of dense adhesions of displaced uterus, tubes, and ovaries without pus formation, in which severe pain is one of the prominent symptoms, simple ablation of the adnexa, with release of the uterine adhesions, is usually insufficient to give relief. The attachment of the uterus anteriorly by hysteropexy or other method of antefixation, in conjunction with removal of the appendage, is sometimes effective, but the entire extirpation of the uterus with the appendages is more successful.

The complete extirpation of the uterus and appendages by the vaginal method for pelvic suppuration was done for the first time by Péan on December 12th, 1886. The case was one of endometritis, complicated with salpingitis, pelvic peritonitis, and suppurating cysts of the ovaries. The uterus was large, inflamed, painful, and fixed in the masses of exudation surrounding it. The same operation was done on the 20th of the same month. In 1888, Péan did the operation four times. He described it, with its results, in a communication to the Paris Société de Chirurgie on July 2nd, 1890, and again before the International Medical Congress in Berlin in the same year.

When first performed, the operation found few supporters, but Segond, having performed it a number of times, became enthusiastic over the results obtained. Doyen, of Rheims, began operating by the vaginal method in 1887, and, at the Brussels Congress of Gynæcology in 1892, was able to report upon 77 cases. At the same congress, Segond reported 103 cases, Péan 150, and Jacobs, of Brussels, 58. The mortality in Segond's cases was a fraction over 10 per cent.; in Péan's, 0.75 per cent.; and in Jacobs', 2 per cent. In a later statistical report (July, 1893), the latter operator reports 140 operations, with a mortality of 1.42 per cent. At the semi-centennial meeting of the Berlin Obstetrical and Gynæcological Society in May, 1894, L. Landau reported 38 operations, with no

deaths. It will be seen from these statistics that the mortality of what is now generally known as the Péan-Segond operation compares very favorably with ablation of the adnexa by abdominal section.

But the mere statistical comparison of the immediate results of an operation is insufficient to enable one to form a judgment upon the desirability of this or that procedure in a given case. The claim is made that the ultimate results are better when both uterus and appendages are extirpated than when the latter are alone removed. This claim finds strong support among American operators, who have, however, generally given preference to the removal of these organs by abdominal section.

Those cases of extensive pelvic suppuration in which many operators (Mundé, Kelly, Pozzi, Landau, Laroyenne, and others) puncture or incise the purulent collections per vaginam, and drain, are, as pointed out by Péan, Segond, and Jacobs, especially suitable for vaginal total extirpation. In these cases it is often extremely difficult, as well as hazardous, to do a complete operation by the abdomen. Pus sacs are liable to rupture and infect the peritoneum, and when the pus is thick and adhesive thorough cleansing of the abdominal viscera smeared with this material is exceedingly difficult. The uterus and intestines are covered with thick masses of lymph so densely adherent as to make separation and thorough cleansing sometimes impossible. In these cases some American operators (Baldy, Krug, Polk, and others) remove the uterus with the appendages, and as much of the inflammatory new formation as practicable, by the abdominal incision. By the vaginal method the work of removal is rendered much easier and less dangerous, and a large opening is left, which, if packed with gauze, makes the best possible drain. To my mind, the operation of Péan-Segond finds in this class of cases its chiefest indication.

Surgeons who have often done the adominal operation for total removal claim that by this method it is easier to deal with intestinal and omental adhesions, that everything is open to the eye, and that any injury to the intestines can be immediately and readily repaired. At first thought this seems a very plausible contention, but practically adhesions do not often materially interfere with the performance of the vaginal extirpation. If an intestinal fistula results, it usually closes readily in a few weeks under gauze-packing and cleanliness.

The objection so often made, that by the vaginal operation one is compelled to "work in the dark," has been refuted by those having much experience with this method. My own observation and experience enable me to pronounce the objection untenable. Even where one has to deal with a narrow vagina, and a uterus high up in the pelvis, every step of the operation can be guided by the eye.

Péan, Segond, Jacobs, Landau, and Doyen have generally found it

possible to remove the uterus and appendages entirely. In the cases in which this is not practicable without exposing the patient too long to the depressing effects of prolonged anæsthesia, the "open treatment," with perfect drainage, gives the patient a much better chance for recovery than does the operation by abdominal section.

The objection has been made that the shock of extirpation of the uterus with the appendages is much greater than when the latter are alone removed. Krug, Baldy, and Polk have denied that this is true of the abdominal method. My own experience teaches that in vaginal total extirpation the shock is not any greater than in simple abdominal section with ablation of the adnexa.

The pain following vaginal extirpation when clamps are used is, undoubtedly, more severe than abdominal section. It only lasts, however, while the clamps are in position, and generally moderates considerably after the first twenty-four hours. I am inclined to believe that pain is greater when clamps are employed than when ligatures are used, but I regard the former as preferable, not only because the operation can be done in less time, an advantage not to be belittled, but also because hæmostasis is more perfect. The forceps must, however, be tested for elasticity before use, must be trustworthy, and must be securely locked. When properly applied and the vagina firmly packed with gauze, protecting the mucous membrane against direct pressure of the forcep-handles, there is usually very little complaint on account of their presence.

The after treatment is no more troublesome than after a simple abdominal section. A soft rubber catheter, with a button end (Pezzer's), is introduced into the bladder and allowed to remain until the first dressing is removed. After removal of the clamps and first dressing (in forty-eight hours), the urine is usually voided without assistance.

Unless the patient is very weak, she may be allowed to sit up in eight to ten days.

After the first dressing is removed the vagina should be cleansed once or twice daily with a douche of warm water. The bowels should be moved on the third or fourth day.

Without desiring to be considered a partisan of the Péan-Segond operation in suppurative and other inflammatory diseases of the pelvis, I am convinced of its great superiority over simple ablation of the adnexa in all those cases in which the uterus is the seat of gonorrhœal, septic, or tubercular infection.

THE ANTITOXINE TREATMENT OF DIPHTHERIA.

By Dr. J. J. Mackenzie, B.A.,
Bacteriologist to the Provincial Board of Health,
Toronto.

POSSIBLY no better example has yet been given us of practical results proceeding directly from careful scientific experimentation than the new blood-serum therapy in diphtheria and tetanus. The foundations of this work were laid in the careful study of the bacilli which cause these diseases, and the toxines which they produce, in cultures and in the animal body. It was noticed very soon that an animal which had received less than the minimum fatal dose of the diphtheria toxine had, upon its recovery from the effects of the dose, acquired a tolerance of larger doses, and that this tolerance could be greatly increased by carefully graduated doses until a considerable degree of immunity had been acquired against infection with the diphtheria germ. The next step of importance was the discovery that the blood serum of an animal thus immunized had the power of neutralizing, either in a test tube or in a second animal, a certain quantity of the diphtheria toxine. The introduction of the serum of the immune animal into a second animal conferred on the latter an immunity directly proportional to the degree of immunity of the first and the amount of serum introduced. It was naturally concluded that this immunizing action of the serum of an immune animal was due to a substance present in it, antagonistic to the toxine of diphtheria, or as it was called, for want of a better name, an antitoxine. The possibility of rendering animals immune to diphtheria by the introduction of an antitoxine led at once to the trial of the antitoxine on animals already infected, and, as one would naturally expect, it was found that much larger doses of serum were necessary to heal an established infection than to immunize against infection.

Various methods of immunization have been tried with the object of producing the greatest possible immunity in larger animals, such as sheep, goats, and horses, in order to obtain large quantities of a powerful serum for use on human patients. Behring, the pioneer in this work, uses the following method in sheep: a sufficient dose of a weakened diphtheria toxine is injected subcutaneously, so as to produce a slight febrile reaction; this is repeated until no further rise in temperature takes

place ; the dose is then increased slowly until large doses (50-100 c.c.m.) produce no reaction, when he proceeds further with doses of unweakened cultures. In this manner he has immunized some forty sheep in about six months, from which, by monthly bleeding, he can obtain a large continuous supply of serum. Roun, in a paper before the International Congress of Hygiene and Demography at Buda-Pesth (*Lancet*, Sept. 22nd, 1894), gives an account of the methods used in Paris. The animals employed are horses, and, from the results, it seems a serum of much higher potency has been obtained than by any of the other methods.

A preliminary report upon the results of the treatment on human subjects appeared in 1893, but it is only within the past few months that we are beginning to get detailed statistics.

Of these some of the most interesting are those of Kossel (*Zeitschrift für Hygiene und Infections krankheiten*, Bd. xvii.). These relate to cases treated in the hospitals of Berlin extending over a considerable period, viz., from September, 1893, to May, 1894. His results are as follows ; Number of cases treated, 233 ; deaths, 54, or a mortality of 23 per cent. : of these 72 were tracheotomies ; deaths, 31, a mortality of 43 per cent. These figures speak very favorably for the treatment, especially when it is remembered that, being hospital cases, they are more likely to be of a severer type than those in general practice. But the best idea of the results of the treatment is obtained when we take into consideration the number of days after the commencement of the disease that the injections of serum were begun. This is shown in the following table :

Day of illness.	Treated.	Recovered.	Died.	Recoveries in percentage.
I.	7	7	0	100
II.	71 (9)	69 (7)	2 (2)	97
III.	30 (7)	26 (6)	4 (1)	87
IV.	39 (14)	30 (10)	9 (4)	77
V.	25 (11)	15 (5)	10 (6)	60
VI.	17 (7)	9 (2)	8 (5)	47
VII-XIV.	41 (23)	21 (10)	20 (13)	51
Unknown	3 (1)	2 (1)	1	—
Totals.....	233 (72)	179 (41)	54 (31)	77

The tracheotomies are in brackets. In the course of this series of cases it became apparent that much larger doses of serum should be used, and in the last 55 cases this was done. Of these 55 so treated, 25 of which were tracheotomies, only eight died (all tracheotomies), and of these three died of pure mechanical hindrance to respiration.

There is no immediate reaction as a result of the injection of the serum, but within twenty-four hours the temperature drops, followed more slowly by the pulse. The membrane ceases to spread, and soon comes

off, and the diphtheria bacilli rapidly disappear from the throat. An urticaria-like rash appears usually within two weeks of the injection ; this is apparently due to the action of the foreign blood serum, and not to the antitoxine.

In the Berlin report there are records of three relapses, which makes it probable that the immunity produced by the serum injections only lasts for a few weeks. The Paris results given in Roun's paper before the International Congress are equally as favorable as those given above. Of 300 cases where the diagnosis was confirmed by bacteriological examination there were 78 deaths, a mortality of 26 per cent. Roun also gives a careful analysis of his statistics, and compares them with the results in the same hospitals under other methods of treatment, but it is not necessary to repeat them here. Suffice it to say that his results agree throughout with those obtained in Germany, not only in the lessened mortality, but also in the curtailment of the duration of the disease, and the rarity of complications following.

It would seem, then, that we have in the blood-serum treatment of diphtheria something much more efficacious than anything that has yet been discovered. But we must not look for progress to stop here, because we have every reason to expect that, in the near future, a method will be found by means of which the antitoxine may be isolated from the serum, and so concentrated that smaller doses will be required, and still better results produced. This has been done, to a certain extent, for the tetanus antitoxine, and it will surely be done for diphtheria also.

[Since writing the above a method has been published (*Zeitschrift für Hygiene und Infections krankheiten*, Bd. xviii.), which is briefly as follows : The goats are strongly immunized, when it is found that a certain quantity of antitoxine passes over into the milk ; this milk is collected, and, after separation of the fat and casein, the antitoxine is precipitated and dried. In this manner a continuous supply of the antitoxine is obtained without the serious drain upon the animal's health which the monthly bleeding necessitates.]

THE POSITION OF THE SCIENCE OF MEDICINE IN THESE LATTER DAYS.*

By Geo. A. Peters, M.B., F.R.C.S.,

Associate Professor of Surgery and Clinical Surgery, University of Toronto; Surgeon to the Victoria Hospital for Sick Children, Toronto; Surgeon, Extern Dept., Toronto General Hospital.

IN opening this meeting, as president of the Toronto Medical Society, my first pleasing duty is to thank its members most cordially for the very real honor they have done me in electing me to the highest office in their gift. In accepting the office, I can assure them that I do not lightly enter upon the duties appertaining thereto. On the contrary, I am painfully conscious of the responsibility which attaches to the chief executive officer of such a society, the more so when I recall the able and energetic manner in which my predecessors have fulfilled the duties of the position.

"May blessings be upon the head of Cadmus, the Phœnicians, or whoever it was that invented books," says the sage Carlyle, in a moment of somewhat rare eupepsia, and, when we recall the advances which medical science has made through the labors of medical societies, we may, not inaptly, beatify their originator, whoever he was, in somewhat similar terms. The advantages which we may look to reap from thus associating ourselves together as a medical society are many and far-reaching, embracing benefits to ourselves and our patients, and enabling us to contribute, to some extent, to the advance of medical science.

In these latter days we are disposed to plume ourselves upon the advanced position which our profession has attained, and to look back with self-complacent indulgence upon the crude pathology and empirical practice of our progenitors. In many respects, it may be admitted, we have cause; but, if we reflect that, fifty years hence, those who succeed us may look back upon us as well-meaning, but clumsy and benighted barbarians, we may be able to retain our becoming modesty.

THE CUMULATIVE NATURE OF SCIENCE.

Learning, in all sciences, is cumulative in its nature, and the science of medicine is a striking example of this law. The present proud position of medicine is ours largely by heredity. We are, in fact, the resultant of a

*President's address before the Toronto Medical Society.

long, tedious, and laborious process of evolution, in the various steps of which each generation of medical men—one might almost say each individual—has borne a brave and honorable part. It behooves us of this generation, therefore, to look to our laurels, to see that we contribute our full quota to the progress at present going on, so that posterity may not be able to charge to our account the "sin of emptiness." The opportunities enjoyed by the practitioner of medicine of to-day are infinitely greater than ever before, but these opportunities carry with them corresponding responsibilities, which, in accordance with common equity, it is incumbent upon us to assume. It is a startling as well as an inspiring thought that the medical embryo of to-day can, with a few years of earnest study, place himself, in relation to his profession, almost at the exact point at which even the leaders of a previous generation were obliged to leave off after a lifetime of unremitting toil and anxious research. Much of their labor was barren and unproductive, but the germs of truth survived, and were incorporated into the compendious text-books which are placed in the hands of the modern medical student.

By thus utilizing the work done by our predecessors, we are undoubtedly making progress in rapid strides, but it must be confessed that the ultimate—the limit of all possibilities as regards the development of the healing art—is not yet in sight; in fact, it is so remote that we need not seriously consider its existence, nor fear to be shocked by suddenly finding ourselves upon its dizzy edge.

THE GERM THEORY.

If there be any inhabitants upon the planet Mars, if they be observing us, as some speculative scientists claim, and if they could be supposed to take any interest in what we know as the practice of medicine, what would be the most striking characteristic of the problem which would confront them?

Would it not be the extraordinary phenomenon of a remorseless hand-to-hand battle, waged without quarter being asked or granted on either side, between a race claiming to occupy the very pinnacle of perfection of all animal life upon this earth—the self-styled lords of creation—and the meanest, the most ignoble, and the most helpless little vegetables in existence, variously known as germs, or microbes—so contemptible in size that one of the principal weapons that must be employed against them is a frightful yawning microscope? We can well imagine that a good fight is dear to the heart of the inhabitants of the war-god's own planet, but we blush to surmise what they must think of such a cowardly and ill-matched combat as this! But perhaps the combat is not so unequal as at first sight appears. Let us investigate. Bacteriologists assure us that each germ has the power, under favorable circumstances,

to reproduce itself in about twenty minutes. By a repetition of this process a single germ may, in forty-eight hours, become the proud parent of some 280 times as many little disease-producers like itself as there are human beings on the face of the earth. So that, as regards the mere question of bulk and numbers, the advantage is not where it would, to a superficial observer, seem to be.

Then as regards effective fighting qualities. Thousands upon thousands of our race succumb annually to the prowess of the germ of tuberculosis alone; the cholera bacillus brings to the dust from thirty to eighty per cent. of all it engages in conflict, and it has been estimated that in the fourteenth century the Black Plague—presumably a germ disease—carried off not less than twenty millions of people.

Moreover, the germ is invariably the aggressor. Unfortunately, we are not in a position to deny having furnished a very remote provocation. Indeed, it is recorded against us that our very first parents took an unwarrantable liberty with the vegetable kingdom, and ever since the days of Sir Walter Raleigh we must abjectly plead guilty to repeated and premeditated onslaughts upon the potato; but these too tempting edibles are very distant relatives of the germs which have taken up the quarrel and are waging such a formidable vendetta; and, since their immediate family was not molested, it certainly seems a trifle officious on their part to take a hand in wreaking such a terrible vengeance.

And we may further submit, in vindication of our own self-respect, that the methods of warfare pursued by these microbes is such as to alienate from them every vestige of the sympathy which their seeming helplessness and innocence might otherwise invite. They have no taste for the pomp and circumstance of war—the formal challenge and the brave advance in battle array. On the contrary, their tactics are treacherous and traitorous to the last degree. Witness, for example, the plan of campaign followed by the bacillus tuberculosis. This germ hesitates not to subvert to its own evil purposes the holiest affections of husband and wife; it flourishes through the clinging tenderness of sister to sister, and it lurks in the kiss which the fond mother bestows upon her trusting child. By thus taking advantage of the most admirable and beautiful touches of human nature, this fell foe to our race often sweeps whole families into premature graves in a few short years. Again, "a cup of cold water" is one of the blessings for the donation of which a sure reward has been promised, yet the cholera bacillus chooses this apparently harmless medium more often than any other as the means of entering the domain of its victim. We dignify the weapons of these germs as "ptomaines," "leucomains," "toxines," "albumoses," or "the metabolic products of their vital activity," mainly because it is too disgusting to think what they

really are. Suffice it to say, that the arms of such germs as the bacillus fœtidus and bacterium termo are of such malodorous character that the stink-pots of mediæval warfare were delicate perfumery in comparison.

There are, it is true, important side issues in the practice of medicine with which, so far as we know at present, germs have no connection whatever; but, in these days, the germ theory of disease so colors the whole field of view as to practically obscure every other question. Now, this cause of disease has, doubtless, existed since the beginning of time. We know, for example, that all the firstborn of Egypt died in a single night, and we may fairly assume, without questioning for a moment the miraculous character of the epidemic, that the cause was some virulent germ, which, in this instance, was compelled to manifest a peculiar selective action. The children of Israel, very early in their career as a nation, passed stringent laws for the segregation of their lepers, though the bacillus leprœ was discovered so recently as A.D. 1874 by Hansen, of Bergen. We read also that Satan "smote Job with sore boils, from the sole of his foot unto his crown," though it is certain that the patient patriarch was blissfully ignorant of the fact that the immediate cause of his sad affliction was the staphylococcus pyogenes aureus.

In view of these facts, then, it is doubtful if any of us fully realize the importance of the stupendous discovery that has burst upon us during the last five and twenty years.

ANTISEPSIS AND ASEPSIS.

The discovery having been made, however, the leaders in our profession—among whom our own English Lister, the French Pasteur, and the German Koch tower head and shoulders above the rest of their generation—were not slow to act upon it, with the result that, for a few spasmodic years, it was even thought that, by the aid of carbolic acid, corrosive sublimate, iodoform, and other chemical ammunition, the strongholds of our at-last-revealed adversaries were to be speedily laid low. This was the brief and not too brilliant dynasty of antiseptics.

Soon recognizing, however, that to destroy germs in a test-tube is a very different thing from dislodging them from their entrenchments in the human body, and that substances which are poison to the microbe are not always innocuous to its host, it early became clear that to avoid a conflict with such a subtle enemy is even better than victory. Thus, again, was the truth of the old aphorism exemplified, that "discretion is the better part of valor," and thus, also, was established the era of "asepsis" and "preventive medicine." Accordingly, the wary physician of to-day, upon the first signal of danger, proceeds at once to place himself in an attitude of defence, and endeavors to keep the foe at bay by attention to the hygienic environment of his patient, by strengthening the resist-

ing power of his constitution, and by embarrassing the commissariat department of the microbes by a chemical disinfection of the whole area of the prospective battle-ground.

Nowhere, perhaps, is the idea of "prevention" more apparent than in the field of surgery. In fact, it may be admitted that almost all the recent advances in surgery are owing to our newly-acquired ability to prevent suppuration and inflammation with some degree of certainty, and to bring about the healing of wounds by first intention.

CONTRAST OF SURGERY ONE HUNDRED YEARS AGO WITH THAT OF TO-DAY.

To give an idea of the condition of surgery as it existed about one hundred years ago, I quote from Pilcher's interesting work on "The Treatment of Wounds." John Bell, in his delightful discourses on "The Nature and Cure of Wounds" (Edinburgh, 1795), claims that the surgeon "does all his services by observing and managing the properties of the living body, where the living principle is so strong and active in every part that by that energy alone it regenerates the lost substances, or unites in a more immediate way the more simple wounds." "Thirty years ago," he says, "surgeons had no settled notions that cut surfaces might be made to adhere; they had no motive for saving the skin, or where they had saved it they did not know how it should be used, nor how much it might contribute to a speedy cure; if they extirpated a tumor, they cut away along with it all the surrounding skin; if they performed the trepan, they performed in a most regular manner that preliminary operation which they chose to call scalping; or, in plain terms, they cut away six or eight inches of that skin which should have saved the fractured skull from enfoliation, and should have immediately covered and defended the brain; in performing amputation, they cut by one stroke down to the bone, and even when they performed the flap amputation they dressed their stump and flap as distinct sores." The subject upon which discussion ran high in Bell's time was that of procuring the repair of wounds by immediate adhesion.

The French surgeons had declared, not only that their flap operation procured an easy and perfect cure, but they affirmed that often in three days the flesh of such a stump had adhered. To this a contemporary of Bell's, O'Halloran, whom Bell characterizes as an excellent and most judicious surgeon, whose doctrine and practice were followed by all the best surgeons of that day, had replied: "I would ask the most ignorant tyro in our profession whether he ever saw or heard even of a wound, though no more than one inch long, united in so short a time?" adding, "These tales are told with more confidence than veracity; healing by inosculation, by the first intention, by immediate coalescence without suppuration, is merely chimerical, and opposite to the rules of nature."

Is it not an astounding fact that the very thing which, scarcely more than a century ago, was regarded as "chimerical, and opposite to the rules of nature," viz., healing of wounds by primary adhesion, has, to-day, become the universally acknowledged standard of proficiency in the art of surgery? This should warn us that we must not allow our egotism to prescribe limits to the possibilities of the development of medical science in the future. Yet, notwithstanding this, I will venture the opinion that in attaining the healing of wounds by first intention we have arrived at an ultimate fact in surgery. In a word, to achieve that result realizes our highest ideal in regard to wound treatment.

In his endeavors to reach this ideal, the surgeon has discovered that he must surround the wound with precautions to prevent the entrance of all possible sources of disturbance, so as to allow the reparative processes of nature to have full sway without let or hindrance. Neglecting, for the moment, all thought of mechanical irritants, we may say, in brief, that the problem he sets himself is to prevent the access of those vegetable germs which research and experience have shown to have the baneful power of destroying and consuming the lymph and leucocytes which constitute the building material employed by nature to repair the breaches in living tissues.

It is a hopeful sign of the times that, should a surgeon find that he has failed in this, and that suppuration has occurred in an operative wound the environments of which have been under his control, he not only feels chagrined, but has a vague and uncomfortable feeling that a certain stigma has fallen upon him because he has failed to reach his ideal. While such a failure should put him on his mettle and lead him to closely scrutinize the technique of his operation, I submit that he may often reproach himself unjustly for such a result. I have once or twice been shocked to see rash statements in works aspiring to be standard text-books of advanced ideas, to the effect that any surgeon who acknowledged to having suppuration in his practice convicted himself thereby of culpable negligence, and rendered himself amenable to action for malpractice. Watson Cheyne, Tubby, and many others have shown that, if septic matter be injected into the veins of a rabbit, and a subcutaneous or even subperiosteal fracture of a bone be produced at the same time, suppuration will probably occur at the seat of fracture; and, surely, so long as there continue to occur, without obvious external wound, such instances of suppuration as thecal abscess, empyema, and acute osteomyelitis, those who are addicted to the habit of committing themselves to paper without adequate preparation and study might at least restrain themselves from making such sweeping and damaging assertions. We have much yet to learn about "blood antisepsis" and "intestinal antisepsis."

Now, while I have been exalting the value of *asepsis* in surgery, I desire to avoid leaving the impression that, in my opinion, the days of *antisepsis* are numbered. On the contrary, we still find, and no doubt shall always find, antiseptic measures indispensable in preparing the field for our operations; in the disinfection of foul and sloughing ulcers and abscesses, in cleansing recent wounds of infective material, and in purifying wounds which have been infected before coming under our care. Manual dexterity, ingenuity in designing operations, and mechanical skill in carrying out these designs, we can scarcely expect will ever be greater than in the days of Syme and Liston. These qualities are not hereditary in the same sense that the term applies to the scientific aspect of surgery. The education of the hand and eye, familiarity with mechanical principles, and dexterity in the use of instruments, are attributes that each surgeon must acquire for himself, and it must be acknowledged that the facilities which we place in the hands of our students for this object are all too small.

PREVENTIVE MEDICINE.

In the practice of medicine, as distinguished from surgery, the question of prevention of disease assumes a more comprehensive and cosmic aspect. The physician, in his capacity as a hygienist, shapes his measures so as to prevent outbreaks of disease in communities. The surgeon concerns himself with the limited area of a wound and its environments, but the physician has the larger task of surrounding a locality with the safeguards of good drainage, clean lanes and streets, pure water for drinking and cleansing purposes, and prompt and complete removal of sewage and garbage. The importance of the work of Boards of Health and of Medical Health Officers is becoming, year by year, more apparent.

In olden times, epidemics and plagues were looked upon as visitations of a retributive Providence, exasperated by the sins and shortcomings of the people; but, in these enlightened days, the advent of an epidemic of smallpox, cholera, scarlet fever, diphtheria, or typhoid fever is greeted with a feeling bordering closely on indignation, and the omniscient people immediately proceed to make a pretty careful canvass of the sins and shortcomings of the unfortunate Medical Health Officer, or Board of Health. In short, the profession has "educated the people up" to the belief that, when such a calamity happens, "some one has blundered," and hence the feeling. Is it too much, then, to hope that in a few decades some, at least, of the preventable diseases may follow the plague, or Black Death, to oblivion? Typhus fever is well on the way, and smallpox might, in a few years, be relegated to the realms of tradition were it not for the senseless opposition of a few addle-pated obstructionists.

THE FIELD OF THERAPEUTICS.

But, while great advances have been made in the prevention of disease, it must be acknowledged that the list of our *effective* therapeutic

agents is increasing with discouraging slowness. I lay stress on the word "effective," for the very obvious reason that our waste-baskets are literally flooded with new preparations for which extravagant merits are claimed, but which do not stand the test of time and experience. It is a somewhat remarkable fact that almost the only real specific we have is a vegetable alkaloid—quinine—which appears to have a destructive action upon the only *animal* parasite which infects man constitutionally. It is almost to be regretted that the more attractive field of lymphs, animal extracts, and antitoxines has enticed many investigators away from the mineral and vegetable kingdoms, which have, somewhat unwillingly, yielded us mercury, iron, quinine, opium, digitalis, and chloroform. Our curative drugs are few, indeed, but the most pronounced pessimist will scarcely deny that we have many agents which greatly palliate the distressing symptoms of disease, and not a few which have a decidedly favorable influence upon the course of a malady. As some person has wisely said: "The pilot at the helm of a tempest-tossed ship cannot curb the storm, but he may guide the distressed barque safely to her haven of rest"; and so with us, though we can seldom cure the disease, we can frequently so modify its course as to turn the wavering balance in favor of the scale of life.

ANIMAL EXTRACTS.

The bearing of advances in our knowledge of physiology is shown by the attention that is being devoted to the therapeutic value of the animal extracts. Brown-Séquard and D'Arsonval, the originators of the movement, base their expectations upon the theory that each gland, in addition to its secretion into its duct, gives something also to the blood, which may be called its internal secretion, and which is useful or necessary in maintaining the normal healthy state of the organism. For example, the thyroid gland—which, by the way, however, is a ductless gland—is now known to have a certain function in the elaboration of the fluids of the body. It is further known that ablation of that organ, or failure in its function from disease, produces that peculiar malady, myxœdema. With a correspondence of theory with fact, which is the more gratifying because of its rarity, it is found that the administration of a properly prepared extract of the thyroid of other animals has a distinctly curative effect upon this disease. As an isolated fact, this may not be considered a very important matter, owing to the comparative infrequency with which the disease is encountered, but as an example of a new departure in therapeutics it is of absorbing interest. It is now in order for some investigator to come forward with an extract of the suprarenals for the cure of Addison's disease, or with an extract of the lymphatic glands for the cure of leucocythæmia. There is a vast deal yet to learn of the physiology of many organs of the body, and when the physiologists know more of these

the experimental therapeutists may furnish us with useful extracts of the spleen, prostate, pineal gland, pituitary body, and other structures which are at present adjudged functionless. There is a large and imposing monument awaiting the genius whose happy lot it may be to isolate a useful extract of the vermiform appendix of the wombat, one of the very few quadrupeds, I understand, which are decorated with this intestinal frill. Seriously, however, if these extracts are ever to be such as to merit the confidence of the profession, it is apparent that they must be prepared with care and skill by a competent physiological chemist. There must be some attempt to realize in the extract that part of the organ which shall, when injected into the blood or tissues of the patient, be able to represent, to some degree, the function of his disabled organ. To mince up the brain, the heart, or the liver of an ox, and dignify the filtrate obtained therefrom by such pretentious names as cerebrine, cardine, or hepatine, is surely the acme of quackery. It would certainly be an excellent thing to have an examining institution, under the control of the State or some properly qualified and responsible authority, under whose judicial scrutiny all such alleged cure-alls should be required to pass before they could lawfully be placed within reach of a too-confiding public.

IMMUNITY.

A very much more hopeful outlook, however, is afforded by the work which is now being done by clever men in rendering animals "immune" or "refractory" to certain diseases. The behavior of bacteria in presence of their own excreta, and in feeding grounds that have been browsed over, as it were, by an allied tribe, or by an adroitly attenuated generation of their own species, suggested to Pasteur, Koch, and other savants, the idea of establishing such artificial conditions within the body as would render it hostile to the germs of disease, and so prevent their development.

It falls not within the scope of this paper to discuss the theories of immunity. From a practical point of view, it matters little which is correct—the theory of exhaustion of the soil as believed in by Pasteur and Cliff; the theory of adaptation as expounded by Grawitz and Flint, who believe that acquired immunity consists in the transformation of the biological function of the organism; or the theory of retention of Chauveau, who explains immunity by supposing that the bacteria first introduced secrete a material that remains in the body, and prevents a later development of the same organism. It is curious to note that variolation or inoculation of smallpox was practised from time immemorial in China and Persia. The practice was imported into Turkey, and thence introduced into Great Britain by Lady Mary Montague in 1721. Vaccination was not discovered by Jenner until 1798. Recent investigations by Eternod, Haccius, Copeman, Klein, and others, whose results were freely

discussed at the last meeting of the British Medical Association, seem to point to the fact that variola and vaccinia are really the same disease. So that probably what Jenner actually used was a virus which had been accidentally attenuated by passing through the comparatively refractory tissues of the cow. In this view of the case, then, the attenuation would be called upon to account for the fact that the vaccinia was not infectious, as the varioloid unfortunately was. At all events, these early inoculations, made, it must be admitted, in a somewhat empirical manner, were the pioneer instances of this plan of treatment, which is to-day, perhaps, the most promising feature of curative and preventive medicine. As it is only reasonable to expect, opinions differ as to the theory of action of the immunizing agents. Welch says: "We now know the protective influence of the blood serum of immune animals consists quite as much in the power to destroy the poisons produced by the bacteria as in the power to destroy the bacteria directly"; and he deduces from this fact the idea that "the antidotal capacity of the blood and animal fluids may be one of the means employed by nature to dispose of the pyogenic cocci." Pasteur, in speaking of the action of the infusions prepared from the desiccated cords of animals affected with rabies, considers "that, together with the modified virus enclosed in the desiccated cords, there exists special chemical products elaborated by the microbe of rabies which play a part in the production of immunity." Kitasato showed "that in animals, at least, by the inoculation of certain chemicals, immunity against tetanus infection may be secured; and, further, that the blood of these animals made immune against the disease may have the effect, when injected into other animals, not only of preventing infection, but of curing the disease when it is definitely established."

Gamaleia considers that immunity to certain diseases enjoyed by various animals is due to the presence in their tissues of certain "defensive proteids," which he thinks are also developed in the processes of vaccination.

Having thus merely grazed the subject of the causes of immunity, let us turn for a moment to the results which may be placed to the credit of the theory.

The results which have been obtained through vaccination against smallpox are too widely known to require more than a mere mention.

Dr. Haffkine's method of inoculation against cholera is still on its trial, but as one instance of its success the following may be mentioned: "Of 200 inhabitants of a native *bustee* (hamlet) 116 were inoculated with the protective vaccine. Not long afterwards an outbreak of the disease occurred in the hamlet; ten persons were affected, none of whom had been inoculated, and seven died. All those who had been inoculated remained free." At all events, Haffkine's work has made so great an

impression in India that the municipality of Calcutta voted unanimously to devote a sum of money to thoroughly test the system for two years.

Smallpox and cholera are the only two diseases which have so far been proceeded against systematically by vaccination. The use of "lymphs," "antitoxins," and "defensive proteids" in other diseases partakes more of the nature of curative than of preventive measures, but the results which have been obtained are scarcely less encouraging. Pasteur has been able to reduce the mortality in rabies from 80-90 per cent. to less than 1 per cent.

In the Children's Hospital, in Paris, the mortality from diphtheria has been reduced from 50 per cent. to 26 per cent. by Roux's antitoxin system. Tizzoni and Cattani have had gratifying results in a number of cases of tetanus. Among the lower animals it appears that experimenters can, with the greatest ease, produce immunization against almost any disease. Millions of sheep in various parts of the world are absolutely protected from anthrax by inoculation. Mice, rats, guinea pigs, rabbits, cows, horses, and other animals, have been immunized from septicæmia, cholera, tetanus, glanders, anthrax, and diphtheria, and it is surely only a question of time when these desirable exemptions may be extended to man.

But while we are encouraged to hope that, in the near future, we may learn to prevent many diseases and to cure others, there still remains a vast number of diseases upon the prevention of which we have as yet had little light thrown. The whole class of tumors, malignant and non-malignant; the congenital deformities, such as club-foot, harelip, and monsters of all kinds, are generally agreed to have a cause which exerts its malevolent influence before birth, and of the nature and prevention of which we are practically in total ignorance.

We also have to lament our impotence in the prevention and cure of the slow and insidious inflammatory diseases, such as locomotor ataxia and other scleroses of the nervous system, atheroma, rheumatoid arthritis, Bright's disease in its chronic form, cirrhosis of the liver, etc.

THE NEUROSES AND INSANITIES.

Preventive medicine finds ample scope for the exercise of its mission in the field of the nervous and mental diseases. That pitiable class of our fellow-men who are the subjects of disturbed mental equilibrium seems to be doomed to perpetual despair, so far as benefit from treatment is concerned. The figures of Tuke and Bucknill, Thurman and Pliny Earle, have shown that, "out of eleven persons who become insane, nine ultimately die insane, and, of the remaining two, but one entirely recovers." One of the saddest features of this subject is the fact that, so far from our being able to prevent insanity, that malady is distinctly on the

increase. In the Milroy Lectures, 1894, Dr. John Berry Haycraft showed, in a very interesting manner, that, in a chart compiled from the Registrar-General's Reports (Great Britain), the curves representing the prevalence of the neuroses and insanities are almost the exact reverse of those showing the fluctuations of the zymotic and infectious diseases. While the growth and development of hygienic and preventive medicine are slowly overcoming the virulence and spread of the zymotic diseases, the insanities and neuroses are on the increase, owing, as explained by Mercier, to the increase of their factors, viz., heredity, on the one hand, and, on the other, the increase in the complexity and severity of the stresses of social and civilized life. In the discussion on "The Prevention of Insanity," at the late meeting of the British Medical Association, the general feeling seemed to be that the time is not yet ripe for legislation on the subject, but that the way must be slowly prepared by the education of public opinion. The president of the section of Psychology expresses himself as being "convinced that the only way to really diminish and stamp out insanity is by so educating public opinion that those who have been insane or are threatened with insanity shall, in the face of such public opinion, abstain from bringing into the world children who must certainly contain in them the potentiality of insanity, who will some of them develop it if others escape, and so will hand on the heritage from generation to generation, till the race dies out."

OUR INTERFERENCE WITH NATURAL SELECTION.

As a race, it cannot be denied that in these latter days we are deliberately interfering to a very appreciable extent with the processes of natural selection. How many rickety, syphilitic, scrofulous, tubercular, and imbecile children are kept alive through the agency of our hospitals, and raised by excessive care and pampering through a sickly and unhappy childhood! Such objects are exultingly pointed out as triumphs of the healing art; they struggle on past puberty, marry early, generally seeming to prefer consorts a little worse than themselves, and, since they seem to retain the power of reproduction with great pertinacity, frequently have large families, who partake of the vicious physical and mental qualities of both parents. In this connection I cannot do better than again quote from Haycraft, who puts the case very strongly: "I do not see how we can shirk the fact," he says, "that preventive medicine and civilization, between them, have already deteriorated in a very marked degree the healthy vigor of our race. If things continue in their present course, it is fair to assume that in a hundred years or so the wretched products of our race—embodiments of every constitutional disorder transmitted by ancestry from whose ranks the diseased have not been weeded out, before the child-bearing period was over, by those natural agencies hitherto free to

act—will drag out their lives, martyrs to surroundings which they have tried to mould; they who, as a race, should have been moulded by their surroundings. Preventive medicine is trying a unique experiment, and the effect is already discernible—race decay. But the experiment has gone quite far enough, and it should be modified to produce a different result. Why should the microbe select? Why not public humanity and public reason, since selection there must be? This appears to be the only possible solution of the difficulty, for it is not to be desired that preventive medicine should cease from making war upon the microbe, provided other selective agencies are used to replace them. Is it not our duty, by boldly facing facts and publicly stating them, to endeavor to bring about such strong public opinion as will force people to look upon the act of giving birth to a diseased child as one of the most cruel sins?"

Powerfully and ably as these sentences place the subject before us, it seems to me that the question of the destination of the race is too large for us. Its solution must be left to the omniscience and omnipotence of Him who determines the destinies of man and microbe. We have been largely endowed with the instinct of self-preservation, and with intellect to guide that instinct. Our instinct is unselfish, in so far as it extends to our fellows; it is tender and sympathetic inasmuch as it embraces the preservation and welfare of those weaker and more helpless than ourselves; and it is merciful in that it drives us not to the wanton destruction of other forms of created life, though we grant that no scruple restrains our destructiveness, when necessary in self-defence, or when required for our subsistence and the continuation of our species.

Certain it is that, individually, we need not let the responsibility for the deterioration of the race rest heavily upon us. The circle which each of us has to fill in the economy of creation is an extremely narrow one. The standard which we try to live up to in our profession has been slowly evolved through the long ages, and we believe that we are realizing our highest ideal when we do our utmost to preserve and prolong human life, whether that life is manifested in the glorious body of a stalwart, godlike man, or in the shrunken frame of a feeble, wailing infant.

HÆMATOCELE DUE TO EXTRA-UTERINE GESTATION.*

By Dr. J. P. Kennedy,
Wingham, Ont.

Mr. President and Gentlemen:

On the 9th day of June last, I was called to see Mrs. B., æt. 33, mother of three children, the youngest six years of age. Had had several miscarriages, the last one occurring about three years ago. Said she had had womb trouble the last five or six years, and had been treated for it by several physicians. She now complained of menorrhagia. Said she had been flowing off and on for the last four weeks, and also had at intervals during that time slight crampy pains on the right side. Once or twice these pains had been so severe that she had resorted to a morphine pellet for relief. Her temperature was normal, her pulse good, and she was up and around attending to her household duties. I advised rest, and prescribed potass. brom., tinct. hyoscy., and some 3 grs. ergotine pills. I saw her again two or three times during the week, and as the flow still persisted advised an examination. At the time I suspected the possibility of extra-uterine pregnancy, but as I could find no swelling, nor bulging, nor apparent enlargement of the tube, I dismissed the idea from my mind. There is no doubt now, judging from the subsequent history of the case, that there was enlargement of the tube at that time, and I should feel chagrined, indeed, at not having discovered it if I did not know of men of eminence who have made similar mistakes. Amongst others, I have personal knowledge of a case that went to Lawson Tait desiring operation. Upon examination he dismissed her, telling her that she had no tubal trouble requiring operation. In the course of a month or six weeks she returned, and insisted upon operation to relieve her sufferings. Upon abdominal section Tait encountered the most formidable adhesions. In speaking of these cases Tait says, in his "Lectures on Ectopic Pregnancy": "Absolute accuracy of diagnosis in the abdomen is very far from being possible; only the ignorant assert that it is, and only fools wait for it." Failing to discover any enlargement of the tube, as I have said, I dismissed the notion of tubal pregnancy. As the uterus was

* Read at the meeting of the Huron Medical Association.

somewhat enlarged and tender on bimanual examination, I considered my case one of endometritis, and advised curetting. This I accordingly did on the 18th day of June, scraping out about two teaspoonfuls of fungous material. I washed out the uterus with a carbolic solution, and applied Churchill's tincture of iodine to the endometrium. There was no return of the hæmorrhage, no fever, and the patient did well for a week.

On the 25th of June, just one week later, I was called up suddenly, and told, by the messenger, that Mrs. B. was dying. I hurried over, and found her almost in a state of collapse, pale and faint, vomiting, and suffering the most agonizing pain in pelvis. I gave her sufficient morphine hypodermically to control pain, and applied hot stupes to the abdomen, ordered vaginal douches of carbolized solution (1 in 40) as hot as could be borne, a gallon every four hours. Next morning when I saw her the pain was comparatively easy; temperature, $103\frac{1}{5}^{\circ}$; pulse, 108. Prescribed quin. sulph., grs. iv., every four hours, and Rochelle salts, ℥i., every three hours till bowels moved. I was at a loss to account for this sudden attack of what I considered pelvic cellulitis—couldn't believe it was septic, as the instruments had been sterilized thoroughly, and I had taken the usual precautions in preparing my patient for the curetting. I now know from the subsequent history of the case that rupture of the sac had taken place, and this accounted for the hæmatocele found subsequently. Upon vaginal examination soon found bulging and fullness behind, and to the right went in Douglas' cul de sac, and rather inclined to the opinion that I had an abscess forming. In three or four days the temperature was down to normal, and remained normal for four days, when she had another acute attack, although not so severe as the former. At this time Dr. Towler saw her with me. He, and Dr. Chisholm, who saw her a few days before, believed it to be a case of pelvic abscess. From this time forward temperature ran from 100° to $101\frac{3}{5}^{\circ}$, and once to 102°; pulse from 92 to 108. Patient suffered no pain, excepting a soreness and constant ache, with occasional sharp shooting pains in the right side. Swelling was gradually increasing in size, but as there were no urgent symptoms, and as I could never satisfy myself that there was fluctuation, I believed I was not justified in adopting any radical measure, and hoped to see the mass subside, in time, under palliative treatment. I may say that only twice during her illness did she complain of chills, and they were very slight.

July 20th. Dr. Macdonald, jr., saw her with me, and considered it a case of pelvic abscess.

From the 28th to 29th of July swelling increased very rapidly in size, and now reached the umbilicus, and I concluded that the time had come to take some active operative procedure. Dr. Macdonald, sr., now kindly saw her with me, diagnosing pelvic abscess, and strongly advised opening

from the vagina. I was rather of the opinion that the swelling could be better got at, and more satisfactorily dealt with, by abdominal section. I accordingly wired Dr. Meek, from London, to come up and see the case. Dr. Meek came the following morning, and putting patient under chloroform, assisted by Drs. Macdonald, sr., and Towler, I aspirated from the vagina, and drew off nothing but blood, proving the swelling to be a hæmatocele. From the history of the case Dr. Meek now diagnosed hæmatocele, due to extra-uterine pregnancy, and advised abdominal section; but, as surroundings were not favorable for immediate operation, advised that she be sent to the hospital. On the way down she suffered some pain, requiring morphine, gr. ¼, to ease. 7 p.m., temperature, 103°; pulse, 100, weak.

July 31st. Morning: Temperature, 100⅖°; pulse, 100, weak. Did not rest very well during the night.

4 p.m. While nurse was not in room, got out of bed, on chamber, to have motion of bowels. Had severe abdominal pain and faintness. Was assisted back to bed. Soon after this temperature ran up to 105°; pulse, 120, weak. It was intended to wait a few days before operating, to see if acute symptoms would not subside, but, after this rise of temperature and pulse, decided to operate on following day. Examination of urine showed albumen pus and casts, so that patient was not in most favorable condition for operation.

Aug. 1st. Temperature went down gradually during the night, till it reached 101° this morning. Pulse, above 100. Considerable abdominal pain during night.

Operation at 2 p.m., by Dr. Meek, assisted by Dr. Eccles and myself. Incision to right of linea alba, over the most prominent part of tumor, thinking possibly peritoneal cavity might be shut off at this point, and that the sac could be emptied without entering general cavity. It was found, however, that peritoneal cavity was not shut off. Over surface of tumor which presented in the wound omentum was spread out and adherent. Adherent omentum was separated, and under it was found some sero-purulent fluid. Thinking the sac might contain pus at this point, a small aspirating needle was introduced, but no pus found. The opening in the sac was enlarged, and it was found to contain thick blood-clot and some syrupy, liquid blood. The clots were partly scooped out with the fingers, and then an effort was made to enucleate the sac, but it was found that the posterior wall, low down, was formed by adherent coils of intestine and omentum. In separating these, the blood sac was broken into. More than a quart of blood-clot was rapidly scooped out with the fingers from behind the right broad ligament, Douglas' pouch, and behind the left broad ligament. On the right side, the right

ovary was found down on posterior surface of broad ligament, embedded in the mass of blood-clot. On the left side, tube and ovary were above and in front of blood tumor. Right tube was found extending out from right cornua of uterus, in the upper and back part of roof of tumor on right. Towards outer extremity it was dilated to about the size of a small orange. Broad ligament on this side was transfixed close to uterus, and the tube, with its corresponding ovary, ligated and cut away. On left side, broad ligament was considerably shortened, and the ovary and tube bound down from peritonitis, and it was deemed advisable to remove them. Patient being in Trendelenburg posture, the walls of the hæmatocele could be easily made out, and it could be seen that the anterior wall was formed by the posterior surface of right broad ligament, posterior surface of uterus, and posterior surface of left broad ligament. The posterior wall was formed by rectum, low down, and, above this, the sigmoid flexure of colon, adherent coils of small intestine, appendix vermiformis, and omentum. Roof on right side by arching broad ligament, and right tube covered over by adherent omentum; in median line, by adherent coils of intestine and omentum. The greater bulk of tumor was on the right side, and the mass sloped off to the left down behind left broad ligament, with its ovary and tube, and between it and the sigmoid flexure of the colon. The floor of the mass was low down behind cervix, in Douglas' pouch. It could be seen, therefore, that it was an intraperitoneal hæmatocele, caused by rupture of the right Fallopian tube. After scooping out all organized blood-clot, etc., from pelvic cavity, and removal of appendages, the peritoneal and pelvic cavity was thoroughly flushed out with hot water, and drainage by iodoform gauze, and glass drainage tube introduced to bottom of Douglas' pouch. There was not much active bleeding during operation, and very little oozing after. The abdominal wound was closed by interrupted silkworm gut sutures. Examination of right tube after removal; dilated part cut open, and sac, about the size of a hen's egg, found, with smooth lining, and, at one point, a thick, fleshy mass about the size of a fifty-cent piece. No fœtus was found.

The following history of case after operation and result of post mortem was kindly furnished to me by Dr. Meek:

Patient rallied very well after operation, with pulse of 86, and temperature 100°. During night she vomited a few times.

August 2nd. Morning: Temperature, $100\frac{2}{5}°$; pulse, 110. Very little pain or distension; looks well; some vomiting still; quantity of urine sufficient.

Afternoon: Temperature, 103°; pulse, 120. Tympanites; quantity of urine less. Ox-gall enema brought away gas and lowered temperature some, and gave relief.

August 3rd. Morning: Did not rest well during night. Temperature, 103°; pulse, 140, weak. Quantity of urine deficient. Bowels have moved with enema, showing no obstruction. Gradually got weaker, and died at 2 p.m.

Post mortem. No hæmorrhage. Pelvis well drained. Rectum and a portion of small intestine very dark and congested, but very little peritonitis. Both kidneys were found enlarged, and unhealthy in appearance. (Have not yet received microscopic report.) The urine examined after operation was found to contain albumen, pus, and casts.

This case was, without doubt, a case of tubal pregnancy, which ruptured into peritoneal cavity about the second month. Why the hæmorrhage was not fatal at the time of rupture can be explained, I think, by the fact that the rupture, in all probability, took place between the layers of the mesosalpinx primarily and subsequently into the peritoneum after inflammatory exudations had formed adhesions, shutting off the pelvis from the general cavity. The gradual increase of tumor was evidently due partly to inflammatory exudation and partly to gradual recurrence of hæmorrhage. There is little doubt that there would have been suppuration in a short time if the case had been left to nature, and I think from the dirty, grayish, necrotic appearance of upper part of sac there would likely have been general peritoneal infection and death. Death was, no doubt, due to septicæmia, complicated by nephritis. If one could always recognize the nature of these things, the sooner after primary rupture such cases are operated on the better. If not operated on soon after rupture, acute symptoms of inflammation set in. Then, if symptoms are not urgent, it is usually safer to delay operation till acute symptoms have subsided. If there are symptoms, however, pointing to probable suppuration, there should be no delay. Pus should not be permitted to form if possible. To have attempted to empty this kind of hæmatocele through pouch of Douglas from vagina would, in all probability, have been disastrous. The posterior wall of sac being made up of adherent coils of intestine and omentum, it is likely that in attempting to scoop out the blood-clots this wall would have been broken, and general peritoneal infection result; or, if wall was not broken, the tube with its fœtal sac and placenta could not have been removed in this way, and there would have been primary risk from hæmorrhage into sac, and secondary, almost certain, risk from decomposition and suppuration at site of placental attachment.

Dr. Meek, in his note to me giving result of post mortem, adds: "Though result in this case was fatal, I am none the less convinced, from my own personal experience in such cases, that by abdominal section we can save a larger percentage of these women than by any other form of

treatment. The introduction of the aspirating needle into the mass in this case was a mistake, and, I am satisfied, did harm. In another such case I should prefer confirming my diagnosis from the abdominal side by opening into the peritoneal cavity, rather than by aspirating per vaginam. In a case of large suppurating hæmatocele recently operated on," he adds, "I made my diagnosis from abdominal side by attacking the tumor by abdominal section, and, from the smooth after-progress of the case, I have not had reason to regret it." In conclusion, allow me to say that probably the largest number of cases of hæmatocele is due to rupture of an extra-uterine gestation sac, but cases of ectopic pregnancy in any form are, as we all know, comparatively rare. Is it not possible, however, that they may occur in the practice of the general practitioner occasionally, without being recognized? This very case I am speaking of would never have been known as a case of extra-uterine gestation had it not been for operation on a subsequent post mortem. If the operation had not been done the case would have, in all probability, succumbed, as I have already said, in a few days, from general peritoneal infection, and the cause of death would have been given as pelvic abscess or peritonitis.

Clinical Notes.

SPINA BIFIDA.

By Dr. Barnhardt,
Assistant Surgeon to St. Michael's Hospital,
Toronto.

Mr. President and Gentlemen:

THE specimen I present this evening is from an infant with the following history: Female, born at full term on February 27, 1893. General appearance of child quite natural and healthy. A soft, glistening, fluctuating tumor, about the size of a hen's egg, was observed in the lumbar sacral region of the spine. When the child cried the tumor became quite tense, and though by gentle pressure it was possible to displace the fluid it returned immediately the pressure was removed. The anterior fontanelle was large; the posterior one with the sagittal and lambdoidal sutures was open; the parietal bones were easily movable, showing, in all, a considerable delay in the development of the cranial bones.

There was almost complete lumbar paraplegia. The calf muscles of the leg were absent; the hamstring muscles of the thigh could be distinguished on the left, but not on the right side. There was contracture of flexor muscles of thigh, most marked on right side; there was talipes varus of right foot. Defæcation and urination were performed naturally. The spine was short, as shown in the accompanying sketch; the anus was prominent, and displaced an inch backwards and upwards. At eighteen days the patient succumbed to an attack of cerebro-spinal meningitis, originating in the tumor.

An autopsy was made twelve hours after death, at which nothing was done except to excise the tumor, with the lower half of the spinal cord, and examine the vertebræ. The accompanying figure illustrates roughly the appearance of the spine. There was right lateral curvature in the lower dorsal and lumbar region; the laminæ of the vertebræ were undeveloped below the ninth dorsal, excepting a partial development of the tenth dorsal. The inferior half of the spine was abnormally short. The cord was

*Read before the Pathological Society, Toronto.

found to terminate in the tumor at the tenth dorsal vertebra. The location of the fibres of the cauda equina has not yet been made out, owing to the specimen being still incompletely hardened, but from the distribution of the paralysis it is quite evident that some of the trunks which go to form the sacral plexus have been implicated in the deformity. The specimen is now in a two per cent. solution of pot. bichromate, and when properly prepared the results of further investigation with the aid of a microscope will be made known to the society.

A CASE OF LOCOMOTOR ATAXIA GREATLY IMPROVED BY SUSPENSION.

By Dr. Hugh A. Cuthbertson,
Chicago.

MR. M., a man aged 36 years, was engaged in office work, and consequently not exposed to inclement weather or great fatigue. He never had syphilis, but had gonorrhœa five or six times, and he indulged in sexual intercourse to excess. He both chewed and smoked tobacco.

Symptoms. In 1888 the nail of the great toe blackened, and, after inflammation of the matrix, with suppuration, was cast off. Soon after this the patient had slight lightning pains at long intervals Then there was loss of knee-jerk. There were no eye symptoms of any kind, and the arms were never affected. At this time the patient's rectum was very sensitive, so much so that, when riding in the street cars, he had to stand up when the car bumped over tracks. Later he had difficulty in passing urine, and he was constipated for two years, having to use cascara sagrada during that time. There was anæsthesia of the legs, and, when he crossed his legs with his eyes shut, he could not tell which leg was uppermost. When his legs were pricked with a pin he did not feel the pain for some time.

When the patient stood with his eyes shut he swayed from side to side, and when washing his face he had to steady himself. He had to keep his eyes on the ground when walking, and he had the characteristic gait of lifting his feet high and bringing them down, striking the ground with the heel first. He never had the cushion feeling on the soles of his feet.

In the fall of 1889 he lost the use of his legs, and had to resort to a wheel chair as a means of locomotion. He consulted Dr. N. S. Davis and others in Chicago, who recommended electricity and no attempt at exercise. He was also told that suspension would do him no good.

In the spring of 1890 he was taken to the Home for Incurables on 55th street, and on June 1st bought a suspension apparatus, and had his room-mate suspend him for from six to nine minutes every other day, being completely lifted off his feet. He kept up the electrical treatment

for a time, and then gave it up, basing his hope on suspension and exercise as a means of cure. He at once wheeled himself out on the balcony, and, taking hold of the railing, walked from one end to the other, increasing the distance each day.

In from fifteen to eighteen months he was able to abandon the wheel-chair and get about with the aid of two canes. In six months more he was able to get about with one cane, and he was now able to walk to Washington Park, a distance of four blocks, but he had to rest frequently in the journey, and when he came home he felt perfectly exhausted. When he came into the hospital he could not sleep well at night, but was very restless, tossing from side to side; but now he sleeps well all night, and wakens up in the morning greatly refreshed. He kept gradually increasing the length of his walks. For the last six or eight months he has been going without the aid of a cane, walks up four flights of stairs three or four times after breakfast, and then six or seven miles in the streets. He spends the afternoon playing croquet.

The bladder and rectal symptoms have almost entirely disappeared. When walking he still staggers a little, but his feet are not lifted so high as formerly, and he says he is regaining power in the front part of the foot and toes.

When he shuts his eyes he still sways to and fro. He thinks that in those cases where suspension has been used and failed, it was not kept up long enough. He has used it continually, every other day, since he entered the hospital.

Of the dozen cases that have been in the hospital since this man entered, but two have been caused by syphilis. It is a noticeable fact that none of these patients are able to use crutches. They all use canes.

Progress of Medicine.

THERAPEUTICS

IN CHARGE OF

GRAHAM CHAMBERS, B.A., M.B. Tor.,

Professor of Analytical Chemistry and Toxicology, Ontario College of Pharmacy; Lecturer in Organic Chemistry and Toxicology, Woman's Medical College;

AND

WILLIAM LEHMANN, M.B. Tor.,

Physician to the Home for Incurables and House of Providence.

Treatment of Nocturnal Enuresis.

Dr. D. MacAlister (*The Practitioner*), having first examined the patient to see that no surgical aid is required, gives atropine and strychnine in doses gradually increased. Eserine salicylate, instilled into the eyes, may be used to counteract the action of atropine on the iris. The patient is awakened in the middle of the night, and at early morning, for the purpose of emptying the bladder. The medicine is administered at 9 p.m., and no liquids are allowed after 6 p.m. The secret of success in this method of treatment lies in giving the drugs, especially the atropine, to the full limit of tolerance.

The Best Form of Glycerine-Jelly

Dr. M. Hodara, of Constantinople, after some investigations into the properties of Unna's glycerine-jelly for the treatment of eczema, concludes that it should melt at a low temperature, and set at a comparatively high temperature. He gives the following formulæ, which fulfil the above requisites:

For a soft jelly, melting point 100° F., setting point 82° F., the following formula is best:

℞.—Zinci oxidi..... 20 parts.
Glycerini..... 12.5 "
Gelatinæ..... 12.5 "
Aquæ..... 55 "

If a hard, contractile jelly is required:

℞.—Zinci oxidi..... 25 parts.
Glycerine..... 10 "
Gelatine..... 15 "
Aquæ..... 50 "

This melts at 102° F., and sets at 87° F.

Thioform.

Thioform, a chemical combination of bismuth, sulphur, and salicylic acid, has been brought forward as a substitute for iodoform. It is a tasteless and odorless powder of a greenish-yellow color. When used as a dressing for ulcers, wounds, burns, etc., thioform has shown itself to be equal, if not superior, to iodoform. However, the specific action of iodoform in tuberculous affections could not be expected from the use of thioform, as the latter does not contain iodine. Finally, thioform has been used internally in doses of fifteen grains. Its action was similar, but superior, to bismuth salicylate.

Pruritus Ani Successfully Treated with Chlorinated Lime.

N. K. Berger (*Zemsky Vratch*) inserts into the anus, about one inch deep, a pledget of cotton soaked in liquor calcis chlorinatæ, and left there until smarting occurs, when it is withdrawn, and the anus bathed with the same solution. The operation is to be repeated. Swelling of the parts, concomitant dermatitis, or eczema, are said to be cured by a few applications.—*The American Journal of the Medical Sciences.*

Bone Marrow in the Treatment of Pernicious Anæmia.

The usefulness of this substance in pernicious anæmia was shown by Prof. Thomas R. Fraser in a valuable paper read before the International Medical Congress at Rome. He gave a very complete clinical history of a case in which no benefit occurred during the prolonged administration of both medium and large doses of iron and arsenic, but that rapid improvement resulted from the administration of ox bone marrow, both with and without iron and arsenic. The bone marrow was given by the mouth, uncooked, and in a quantity of three ounces daily.

The Electrical Treatment of Uterine Fibroids and Subinvolution.

Dr. F. W. N. Haultain (*Edinburgh Medical Journal*) contributes a valuable paper on this subject. He sums up his article with the following conclusions:

(1) The constant current is of the greatest value as a uterine hæmostatic when due to small fibroids and subinvolutions.

(2) It is curative in most cases of endometritis.

(3) That it reduces measurably the size of a certain proportion of fibroid tumors, while upon the majority it has a salutary though less decided action.

(4) That its action on fibroids larger than a seven months' pregnancy is not curative, but temporarily palliative.

(5) That it reduces the size of subinvoluted uterus.

(6) That beneficial constitutional effects are rapidly promoted.

(7) That its method of hæmostatic action is both local and interpolar, the latter being, probably, the most potent.

Treatment of Urticaria.

In the *Journal of Médicine de Paris* for April, 1894, is an article upon this disease, from which we make the following abstracts:

The indications which are to be met in its treatment are the removal of the cause and of the symptoms. It is to be remembered that among the causal factors are a large number of vegetable substances and parasites, and that, in addition, fish, shell-fish, and similar articles of food may produce these symptoms. Among the important drugs which produce urticaria are antipyrin, arsenic, copaiba, chloral, salicylic acid, santonin, the iodides, bromides, and turpentine. Often these eruptions can be relieved by external applications, and of course the causative factor in the eruption should be removed.

For the urticarial diathesis a severe alimentary régime should be instituted. Red meats and similar substances should be avoided, and only white meats taken. Heavy rich foods are also to be avoided. Should an arthritic diathesis be present, alkalies, such as bicarbonate of sodium or Vichy water, should be used, or one of the mild purgative alkaline waters resorted to.

Should the urticaria be due to dyspepsia with constipation, the following prescription may be given:

℞.—Benzonaphthol,
Powdered rhubarb,
Calcined magnesia, of each, gr. v.

Make into one cachet, and administer such a cachet half an hour before each meal.

Should diarrhœa be present, order:

℞.—Betanaphthol,
Salicylate of bismuth,
Prepared chalk, of each, gr. v.

To be put into one cachet, which is to be taken after each meal.

Should nervous irritation be sufficient to prevent sleep, some mild hypnotic may be given—such, for example, as a small dose of opium, or sulphonal in the dose of 8 grains. Should the nervous irritation be very great, as much as 30 grains may be given in a day; or, in other cases, cachets containing as much as 4 grains of chloralose may be given four times a day. Often, too, bromide of potassium, in moderate dose, with extract of valerian, is useful. For the local treatment, lotions and powders are chiefly indicated. Baths are also useful. The patient is directed to take a bath of moderate temperature for a quarter of an hour. The bath contains one litre of vinegar, one litre of glycerin, and two drachms of corrosive sublimate. It should be taken in a porcelain or wooden tub. In relation to lotions there is much room for choice. Some recommend ether in the proportion of one-third, others vinegar one-third, or, again, Cologne water in the proportion of one-third, or the following prescription may be used as a lotion :

℞.—Corrosive sublimate,
Chloride of ammonium, of each, gr. ii.;
Aqua lauro cerasi, ʒiiss.;
Distilled water, ℥viii.

Of the powders to be employed after the bath, we may use simple powdered starch, one-fourth of oxide of zinc, one-tenth of salicylate of bismuth, or one-fiftieth part of camphor. Of the salves, those which contain menthol or phenol are of most value, as, for example, the following prescription :

℞.—Vaseline, ℥i.;
Oxide of zinc, gr. xlv. to gr. lxxv.;
Menthol or phenol, gr. v.

CHRONIC ULCER OF STOMACH.

℞.—Chloroform..... ʒi.
Bismuth subnitrate.... ʒiii.
Distilled water..... ℥xvi.

Sig.—Shake, and take one or two teaspoonfuls every hour.

FISSURE OF THE NIPPLES.

℞.—Aristol..... ʒiss.
Liquid vaseline..... ℥i.

Sig.—Apply after each nursing.

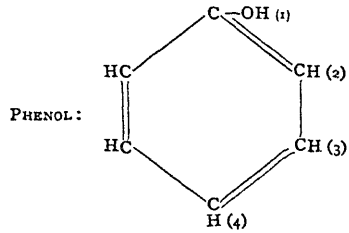
Gonorrhœal Ophthalmia and Ophthalmia Neonatorum.

℞.—Sulphate of quinine.... 2.
Dilute muriatic acid.... .75
Distilled water..... 180.

Sig.—Shake well, and use as an eye-wash every hour.

Trikresol: A New Antiseptic.

Trikresol is a mixture of the three isomerides, ortho-, meta-, and para-kresol. They are homologues of phenol C_6H_5OH, and differ from it by having one atom of hydrogen replaced by the radical methyl CH_3. The existence of the three isomeric compounds is explained by the different positions occupied by the methyl group in the benzine nucleus.



Phenol: : C_6H_5OH

$C_6H^{4}{}_{-CH_3,^2}^{-OH\ ^1}$ $C_6H_4{}_{-CH_3,^3}^{-OH\ ^1}$ $C_6H_4{}_{-CH_3\ ^4}^{-OH\ ^1}$

Ortho-kresol. Meta-kresol. Para-kresol.

Trikresol forms an important constituent of a number of germicides—creolin, tysol, aseptol, etc.—which have, of late years, come extensively into use. However, it is only recently that a mixture of the kresols in the pure state has been obtained from coal tar. It is a clear, colorless liquid, soluble in water to the extent of about 1 in 40. It is, at least, three times more active than carbolic acid, and, moreover, is less poisonous, and does not numb the fingers and hands of the operator. One per cent. solutions of trikresol kills the pyogenic cocci in half a minute. The presence of albuminous substances do not materially retard its action. Finally, trikresol is cheap, which is an important factor to be considered with respect to an antiseptic.

OBSTETRICS

IN CHARGE OF

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ASSISTED BY

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Sepsis Puerperalis. A Clinical and Bacteriological Contribution.

(Goldscheider, A., *Charité Annalen*, Band xviii.). The basis of this essay are sixty-eight cases of puerperal fever observed during the last three years. The cases are divided into the following classes, according to the classification of Kehrer:

(1) Sapræmia (resorptive fever)—sixteen cases.

(2) Peritonitis—twenty-one cases.

(3) Pyæmia, thrombo-phlebitis, and mixed forms—twenty-four cases.

(4) Septicæmia—three cases.

(1) *Saprœmia.* Under sapræmia is understood a febrile condition caused by the resorption of putrid masses from the cavum uteri. This fever subsides after thorough local antiseptic treatment. The author reports twelve cases (five confinements at term and seven abortions) without a death, and concludes that the prognosis of sapræmia is favorable, especially if a timely and energetic local therapy is carried out.

The fever shows peculiar characteristics. It is intermittent or markedly remittent; initial chills are the rule. The pulse is full and of moderate tension, in contrast to the small, rapid pulse of the septic forms of puerperal fever. Respiration is rapid—about sixty per minute. Herpes labialis is sometimes observed. Stinking lochia are the rule. Local symptoms are generally absent.

In the beginning sapræmia may resemble the gravest forms of puerperal fever. The results of the local treatment aid in making the differential diagnosis, and enable us to give a favorable prognosis.

Under the same heading he also reports four cases of temperature rise

due to infected lacerations of the perinæum. These did well under appropriate local treatment.

(2) *Peritonitis puerperalis* (eight abortions, twelve deliveries at term, all terminating fatally). When these patients first came under observation the tympanitis was moderate; it increased with approaching death. Exudations could only be demonstrated in four cases. Abdominal tenderness is characteristic of peritonitis; it may be absent if the sensorium is not free. Although vomiting is generally thought to be a constant symptom of peritonitis, it was not present in four cases. The pulse is small and frequent. The character of the fever is variable. The temperature ranged from 38.5° to 42° Celsius. In three cases the temperature was subfebrile; in these cases there was collapse.

The lochia were stinking in five cases. The fully described cases and accompanying post-mortem reports give no uniform picture.

(3) *Puerperal pyæmia, thrombo-phlebitis, septico-pyæmia.* The author groups these cases into nine subdivisions. In some cases there was thrombo-phlebitis and embolism; in others pus or pyogenic products were circulating in the blood. He also describes cases in which, besides the pyæmia, there existed a diphtheritic endometritis and diphtheritic puerperal abscesses.

The prognosis in these cases is undoubtedly better than in the septic form; out of twenty-four cases nine recoveries are noted. The differential diagnosis between pyæmia and septic peritonitis is only possible after prolonged observation. Repeated chills are characteristic of pyæmia. In septic peritonitis we have chills in the beginning of the disease. The character of the pulse is of great importance in the diagnosis and prognosis. In cases of pure pyæmia we find a fever pulse, full and bounding. Stinking lochia are less frequent in pyæmia than in septicæmia. Swelling of the spleen could not be demonstrated *intra vitam*. A purulent peritonitis is not of a pyæmic nature.

(4) *Septicæmia* (three cases—one abortion, death after four days; two deliveries at term, fatal after nine and seventeen days respectively). The varying picture of the disease is probably due to differing biological conditions and the malignancy and number of the invading streptococci. The malignancy of the streptococci is apparently not caused by any special virulence of the secreted poisonous substances, but is due to an enormous power of propagation. It is doubtful whether the streptococci acquire the malignant character only after they have invaded the system. More probably their greater development is aided by the presence of bacteria of putrefaction in the cavum uteri.

The therapeutic rules laid down are, in brief, the following:

Local therapy in sapræmia.

Avoidance of all and every local treatment in the peritoneal forms of puerperal fever, also in thrombo-phlebitis and pyæmia.

Intra-uterine irrigation in endometritis purulenta, without disturbing the patient much.

Abundant nourishment. The author has used the stomach tube with much success in the feeding of the patients. Alcohol. Absolute rest and sleep. Active stimulation. Tincture strophanthus in cardiac weakness. —*American Journal of the Medical Sciences.*

Aseptic Midwifery without Internal Disinfection.

Mermann (*Centralbl. f. Gynak.*, No. 33, 1894) discusses aseptic as distinguished from antiseptic delivery. He brings forward statistics of 300 labors in the Mannheim Lying-in Hospital, from December, 1892, to February, 1894. In no case, not even before or after operative interference, were antiseptics introduced into the internal organs. Unless the labor was far advanced, each patient was examined internally. Not one mother was lost; one, it is true, had phthisis, and was transferred to a general hospital, where she died. In no case did any severe infectious disorder occur. Mermann, adding the above to previous statistics, can show a series of 1,200 labors without one instance of fatal infection. Two deaths are included, but in one—the case of phthisis just noted—death was not due to the labor; the second was a case of rupture of the uterus. Mermann shows that antiseptic midwifery cannot claim such favorable results.—*British Medical Journal.*

Sudden Death During Labor.

Mrs. C., aged 25, had had two previous confinements, which were rapid and normal. There was a history of rheumatic fever when a girl. Cardiac disease (mitral stenosis) had resulted, but was not suspected till five months before her third confinement, when she suffered from acute bronchitis with hæmoptysis. There was some œdema at the latter end of pregnancy, and for a week before labor. She was kept in bed; there was then no bronchitis.

Labor began on April 1st. The os was well dilated when the membranes ruptured, and a fourth facial presentation was made out. Progress was slow and pains severe and rapid before the face and cranium swept over the perinæum, which remained intact. She rested some minutes after the expulsion of the child, and spoke about her labor being more severe and different from the others. Friction and gentle compression of the uterus was tried to expel the placenta; whilst doing so she began to cough, and suddenly threw back her head, gasping for breath, with wild,

staring eyes. She rapidly became unconscious, and died in about two minutes. The heart continued beating for about half a minute after the beginning of the attack. The placenta was hurriedly expelled, and ether and artificial respiration tried, but without avail. There was no post-partum hæmorrhage. No post-mortem examination was allowed.

This was probably a case of pulmonary embolism occluding the main trunk, the blood clot forming in the right ventricle or auricle during the pains of labor, and getting dislodged by the coughing.—James Dunlop, M.B., C.M., Glasgow, in *British Medical Journal.*

INDUCTION OF PREMATURE LABOR IN A CASE OF CONTRACTED PELVIS.

(Ballantyne, *Edin. Med. Jour.*, July, 1894.) The patient, æt. 42, pregnant for the eighth time, was 5 ft. 1½ in. in height, and had no apparent deformity. The abdominal enlargement suggested that full term had almost been reached. The obstetrical history showed gradually increasing difficulty in labors, beginning with the third and culminating with the seventh, in which the child had to be broken up.

Pelvic measurements: Interspinous diameter, 9 inches; intercrestal, 10 inches; external conjugate, rather over 7 inches; intertrochanteric, 12¼ inches; diagonal conjugate, 3 inches. The true conjugate was judged to be about 2½ inches, and all the other diameters were slightly less than normal.

The patient stated that she last menstruated in May, 1893, but there was a profuse discharge of blood on July 9th following. Quickening occurred in the beginning of November. Induction of premature labor was begun on February 15th, when it was calculated that the pregnancy was 220 days old. Pelzer's method of injecting two ounces of glycerine through the cervical canal into the lower uterine segment was employed four times on the 15th, but nothing resulted. Next day the cervix was dilated with Hegar's dilators up to No. 12, still without result; so, at 7 p.m., Champetier de Ribes' dilator was introduced well within the internal os. Uterine action began at 7.30. As the head would not engage in the brim, version was performed under anæsthesia. The lateral parts of the pelvis were found roomy, and no spinal deformity was felt. After much difficulty the child was born alive 6¾ hours after the introduction of de Ribes' bag, but it died seven hours later. Its bi-parietal diameter measured 3¼ inches; bi-temporal, 2¼ inches. The mother made a good recovery. Ballantyne is inclined to attribute the narrowing of the conjugate to an osseous or cartilaginous tumor growing forward from the first sacral or last lumbar vertebræ.—*Medical Chronicle.*

Puerperal Infection from the Intestine.

Dumont (*Archives de Tocol. et de Gynéc.*, July, 1894), in a paper on "Puerperal Pseudo-Infection of Intestinal Origin, due to the Bacterium Coli Commune," says this form of infection arises from changes in the intestinal mucous membrane, inflamed through compression by the gravid uterus, or through retention of fæces irritating the coats of the bowel. These changes allow the bacterium coli to pass into the peritoneum, setting up infection, which is intestinal and not, strictly speaking, puerperal in origin. The symptoms usually appear about a week after delivery, the patient doing well at first, but being troubled with obstinate constipation. The temperature and pulse rise very high, the face looks pinched, the tongue is rough, the breath fœtid. The mental condition remains normal, and even the appetite may be good. There is tenderness over the cæcum, transverse colon, and sigmoid flexure. Sometimes a flabby mass can be felt touching the uterus, but separable from that organ. The uterus and fornices feel free on palpation, as in many cases of true puerperal infection. The result is very uncertain. At least the course of the disease is different from that of enteric fever. In mild cases the symptoms disappear after the action of a purge; in other instances the patient dies within a fortnight; in others, again, she may remain ill for over six weeks, and yet recover. The usual sequelæ of infections have been known to follow, such as phlegmasia dolens, arthritis, ulcerative endocarditis, and salpingitis. An important complication, observed by two obstetricians, is paralysis, caused by central myelitis; this explains the great frequency of paralysis of the intestine, which involves further retention of the irritating scybala and greatly aggravates the disease. Dumont believes in the prophylactic treatment of this kind of infection. The bowels should not be allowed to become constipated during pregnancy. Laxatives and enemata during childbed are imperative from the first. Seven cases of intestinal infection are described.—*Epitome, British Medical Journal.*

The Temperature after Delivery in relation to the Duration of Labor.

Dr. Arthur E. Giles gave an analysis of 600 cases of normal labor from the point of view of the relation of the temperature immediately after delivery to the characters of the labor. The results were summarized as follows: (1) The average rise of temperature due to labor was slight, the average of the 600 cases being 98.7 F. (2) The length of the labor bore but a slight relation to the subsequent temperature. (3) The length of the second stage, however, had a direct influence on the temperature,

which rose in proportion to the length of this stage. (4) The time of day at which delivery took place had very little influence on the temperature, which, however, was highest in the groups of cases where delivery took place between 12 p.m. and 4 a.m., and between 4 p.m and 8 p.m. (5) When chloroform was given during the second stage of labor the temperature was commonly lower immediately after delivery, even if the second stage lasted longer. The average temperature in fifteen cases with a second stage averaging two hours and forty minutes was 98.7. (6) A similar result followed the application of forceps under chloroform; in twenty-six cases with a second stage lasting on an average three and a half hours the average temperature was 98.8. (7) In twelve cases of natural delivery in which the second stage lasted on an average thirty-five minutes, but where an intra-uterine douche was given, the average temperature afterwards was 99.4 F.

Pregnancy and Labor with Bright's Disease.

Dr. Herman presented to the London Obstetrical Society six more cases of pregnancy and labor with Bright's disease. He concludes there are at least two kinds of renal disease to which the pregnant woman is specially liable. One of these is a very acute disease, in which premonitory symptoms are either absent or of duration measurable by hours or days. It attacks chiefly primigravidæ. It often causes intra-uterine death of the child. It is attended with extreme diminution of the quantity of urine, and the small quantity of urine that is passed is greatly deficient in urea, but contains enough albumin to make it solid on boiling. This disease is accompanied with rapidly recurring fits. If it run a favorable course, the fits cease, then the urine increases in amount, and the percentage of urea in it rises. If the excretion of urea be not re-established, the case quickly ends fatally. Such cases seldom, if ever, pass into chronic Bright's disease.

The other is a disease which attacks older subjects, chiefly those who have had children before. Its premonitory symptoms extend over a period measurable by weeks or months. It often leads to intra-uterine death of the child. It is accompanied generally by increase in the quantity of urine, with copious loss of albumin, but not so much in proportion to the urine as in the more acute disease, and with diminution in the elimination of urea, but not nearly so great a diminution as in the more acute disease. Delivery is followed by temporarily increased diuresis and increase in the urea elimination. When this increase is considerable the albuminuria usually diminishes and disappears, and the patient gets well. When the increase is only slight the albuminuria persists, and the case becomes one

of chronic Bright's disease. This form of disease is sometimes attended with fits, but generally not. The presence of albuminuric retinitis affects the prognosis unfavorably. When the pressure within the abdomen is greater than usual the amount of urine may be diminished, but in such cases the diuresis and the augmentation of the urea elimination after delivery are proportionately greater.

In the acute disease which causes eclampsia, and in the chronic disease when it is associated with excessive intra-abdominal pressure, much of the albumin is paraglobulin. The cases in which the albumin is mainly serum-albumin generally either die or pass into chronic Bright's disease.—*Abstract from the American Gynæcological and Obstetrical Journal, October, 1894.*

The Care of Pregnant Women.

At the annual meeting of the American Association of Obstetricians and Gynæcologists held in this city on September 19th, 20th, 21st, Dr. Dewees, of Salina, Kansas, read a paper entitled "The Care of Pregnant Women," a report of which appeared in our last issue, page 779. He concludes that civilization, with its fixed habits of excesses—through ignorance as well as carelessness—is the true source of woman's present suffering during gestation and childbearing. It follows, then, that the prevention of their sufferings lies in the education and training of these women so that they will cultivate the self-discipline requisite to enable them to prevent the continuous irritation from excesses in their habits of life.

The next great advance in our special branch of medical science will be through convincing the general practitioner that the diseases peculiar to women in pregnancy and parturition are largely preventable. When this obtains, his moral obligation will impel him to give adequate instructions concerning the ill-effects of improper posture, dress, food and drink, and erroneous habits of living, including the non-forbearance of indiscriminate excesses and impure sensual indulgences.

As yet we are compelled to meet the situation as we find it, and it becomes the duty of the obstetrician:

(1) To discover if the patient be actually pregnant.

(2) To determine positively whether the pregnancy be uterine and normal, or tubal, abdominal, and abnormal.

(3) To carefully note the history, age, primiparity or multiparity, environments, station in life, general condition of health, period of gestation, dress, food, drink, habits of life; to make repeated examinations of the urine, and to ascertain the temperature from the time pregnancy is established to the termination of gestation.

(4) To make a physical examination for the purpose of accurately determining the pelvic diameters; the symmetry and size of the bony outlet; the integrity, condition, and position of the vagina, uterus, and other intra-pelvic viscera and adjacent structures; the state of abdominal muscles; the presence or absence of hernia, varicose veins, tumors, etc.; the shape, size, and condition of the breasts and nipples; the condition of heart, lungs, mind, stomach, bowels, etc.

(5) To observe the state of the fœtus, its strength and viability, as well as the implantation of the placenta.

The thoughtful obstetrician will advise the patient as to the requisite régime. The consciousness of his full duty will impel him to insist upon:

(1) Absolute regular hours and wholesome environments.

(2) Plain, but nutritious diet.

(3) A proper amount of exercise by walking or light labor on foot, and maintaining the correct erect posture, with not less than ten hours' sleep out of every twenty-four.

(4) The open condition of the bowels and skin, which is to be chiefly maintained by proper diet, exercise, and bathing, the wearing of flannel, warm, low-heeled shoes and loose garments, and, in rare cases, the proper use of laxatives and hot water enemata.

Uranalysis and thermometry are very important from beginning to end of pregnancy. They are simple in detail, yet how prolific of averting the culmination of conditions very hazardous to mother and child—conditions which otherwise are frequently discerned only by the appearance of anasarca of the lower extremities, œdema of the face, or an eclamptic seizure. Dr. Dewees would replace the term "puerperal fever" by "parturial sepsis." He thinks the first misleading, and failing in the expression of the condition it is intended to imply. Parturial sepsis is a surgical sepsis, arising from the conditions in which women are found during the extension of the uterine contents, similar to those during surgical procedures. When the pelvis is abnormally distorted or contracted, pelvimetry furnishes the chief guidance. In the present light of science, premature delivery and embryalcia have no place in the obstetric art in connection with a viable fœtus. We are thus left to choose between two procedures whenever we find the pelvis so distorted or contracted that it precludes all probability of delivering the living child, namely, symphysiotomy and Cæsarian section. At term symphysiotomy is available only in cases where the conjugat measures are sixty-seven millimetres, while if the conjugat is found to be sixty-seven millimetres or under the only recourse is Cæsarian section.

The distinction of the embryo is, however, requisite under certain circumstances or conditions, such as the presence of large fibroids in the body of the uterus, or large tumors involving both the ovary and uterus, also cancer of the uterus, and, in certain cases, placenta prævia.

In the discussion which followed, Dr. J. Henry Carstens, of Detroit; Dr. Joseph Hoffman, of Philadelphia; Dr. H. W. Longyear, of Detroit; Dr. C. A. L. Reed, of Cincinnati; Dr. Duff, of Pittsburg; Dr. Joseph Price, of Philadelphia; Dr. W. B. Jones, of Rochester; and Dr. E. W. Cushing, of Boston, took part.

Regarding the subject of albuminuria of pregnancy, Dr. Longyear said he knew of nothing that would do much good except emptying the uterus. The more he had seen of the fatal results of albuminuria of pregnancy, the more he had been convinced that the only safety to the mother is to deliver her just as soon as he found albuminuria present. He believed it to be justifiable practice if, after repeated examinations of the woman, he found the system to be surcharged with urea to deliver. He would say that the majority of deaths he had seen from albuminuria incidental to labor had not been attended with eclampsia, and that women oftener die from uræmic poisoning without convulsions.

Dr. Reed said that if it be true that the condition were not a remediable one, then the position which Dr. Longyear assumed would be tenable. But these cases are curable, and he could see no reason for entering upon a murderous line of tactics simply because the baby was little.

When the fact has been demonstrated that the case is not curable, then the proposition relative to the induction of premature labor could be taken into consideration, but the idea that delivery should be brought about the moment the diagnosis of albuminuria had been made is one he could not permit to go without a challenge.

Dr. Duff said, in reference to the question of albuminuria, that he regretted to hear Dr. Longyear say that we should bring on labor whenever albuminuria was detected. About twenty per cent. of pregnant women have more or less albuminuria, and there are not more than two per cent. of pregnant women with albuminuria who have eclampsia. He thought it seldom, indeed, that death occurred from albuminuria of pregnancy without eclampsia. It had not been discovered how the different poisons were eliminated from the kidneys, and it had not been positively demonstrated that it is albuminuria *per se*, or uræmic poisoning, that kills women.

SURGERY

IN CHARGE OF

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CHOLECYST-DUODENOSTOMY AND GASTRO-ENTEROSTOMIES BY AID OF MURPHY'S BUTTON.

While operations on the gall-bladder have been performed as long ago as in the middle of last century, it is first during the last ten or fifteen years that improved methods have been devised, by aid of which a moderately favorable prognosis could be obtained.

We owe this progress, as to many other advances in surgery, to American surgeons; in this case to Dr. John B. Murphy, of Chicago, whose anastomosis button, by its simplicity and mechanical perfection, and the ease and celerity with which it may be applied, seems to fulfil all indications for a safe and reliable removal of gallstones from the gall-bladder itself.

The question arises, When ought we to operate in cases of jaundice? It is impossible to give a distinct diagnosis in each case. Jaundice may be the result of gallstone impaction in the common duct, or of cancer of the pancreas or liver, involving the duct, or simply of a gastro-duodenal catarrh. In many cases, of course, the symptoms will be sufficiently prominent to give a differential diagnosis; in others the diagnosis will be obscure, unless we open the abdomen.

I need scarcely mention that an impacted gallstone, if sufficiently large, in the common duct gives jaundice, and, secondarily, swelling of the gall-bladder, while an impaction in the cystic duct is not followed by jaundice, and may not be followed by swelling of the gall-bladder, unless cholecystitis supervenes. On the other hand, swelling of the gall-bladder, with or without jaundice, may be the result of a carcinoma of the gall-bladder itself, or neoplasms in the pancreas and liver, involving the common duct, or of an empyema, the result of cholecystitis with or without gallstones.

When ought we, therefore, to discard medical treatment, and have recourse to the only means which can clear up the diagnosis—laparotomy?

I believe that jaundice ought to be treated by laparotomy after a course of medical treatment of several weeks has demonstrated the improbability of relieving the trouble by this means.

The abdomen having been opened by a vertical incision at the outer edge of the rectus muscle, we may examine the gall-bladder for stones in the common, cystic, or hepatic ducts, and if found, particularly in the gall-bladder, remove them with scarcely any danger to the patient. If carcinoma of the gall-bladder should be found, it is entirely feasible to remove the gall-bladder by cholecystectomy. If the common duct should be found obstructed by a neoplasm, we may, at least, relieve the jaundice by a cholecystenterostomy, with any more danger to the patient than accompanies an explorative antiseptic laparotomy, and that is *nihil*.

The older operations for gallstones consisted in: (1) Suture of the gall-bladder to the parietal peritoneum with secondary incision, *i.e.*, cholecystotomy in two sittings; (2) suture with immediate incision, *i.e.*, cholecystotomy in one sitting; (3) incision of gall-bladder followed by immediate suture and reposition in abdominal cavity, *i.e.*, ideal cholecystotomy. Of these three operations, the first has given the most favorable results, the mortality being ten per cent., six deaths in fifty-nine cases.

The second operation has given a mortality of 19 per cent. in 201 cases, but both the first and second operations have the great disadvantage that a biliary fistula is left in a large number of cases, estimated at 31 per cent., so that perfect recovery has only been obtained by these operations in about 50 per cent. The third operation, ideal cholecystotomy, has given a mortality of 23 per cent. Compare the results of these operations with the most modern operation, scarcely as yet known to physicians, cholecystenterostomy, or cholecyst-duodenostomy, by aid of Murphy's button, with a mortality of *nihil* and a complete recovery of 100 per cent. in seventeen cases, or, if I add one of my own, eighteen cases, and you will probably agree with me that the problem of removing gallstones by operation has been most ably and brilliantly solved by this new device.

The operation is performed in the following way: After the abdomen has been opened and the gall-bladder isolated and drawn out of the wound, a running thread is inserted around a line one-third longer than the incision to be made, and going through all the layers of the organ. The incision is thereafter made and the gallstones removed. It is not necessary to remove all the gallstones, as they will pass away after the button has been passed. One-half of the button is now inserted with a forceps and the running thread tied around the cup. A similar thread and incision is

made in the duodenum, opposite the mesentery and below the head of the pancreas, the button inserted and the two halves firmly pressed together. The spring in one of the cups maintains pressure till the button sloughs off, and it is voided by rectum in from seven to twenty or twenty-five days. The gall-bladder shrinks thereafter, forming a canal of the size of the common duct. This operation is, according to Murphy, indicated: (1) In all cases in which it is desired to drain the gall-bladder; (2) in all cases of cholelithiasis with obstruction of the common duct; (3) in all cases of cholecystitis, with or without gallstones; (4) in all profusely discharging biliary fistulas. It is contraindicated: (1) When the gall-bladder is too small for insertion of the button; (2) where adhesions are so extensive that the bladder and duodenum cannot be approximated; (3) where the ductus cysticus is obliterated, in which cases cholecystectomy is indicated.

When a stone is impacted in the common duct, attempts have occasionally been made of removing it either by crushing it through the walls with instruments protected by a rubber covering, or by dividing it by a needle introduced through the wall, or, lastly, by incising the duct, removing the stone, and closing the wound by suture. This last operation is very difficult, on account of the deep position of the duct, and the mortality is about 40 per cent.

The Murphy button may be used to advantage on other organs than the gall-bladder. In a recent case, operated seven weeks ago, I made an anastomosis between the stomach and the duodenum, on account of cancerous stricture of the pylorus. The case was entirely successful, all vomiting stopped, and the patient left the hospital in three weeks greatly improved, able to eat and retain his food. His life will, probably, be lengthened a good many months by this operation. In another case of cancer of the pylorus, in which the patient was extremely exhausted from starvation from vomiting, death occurred twelve hours after the operation. The operation was performed in less than fifteen minutes, and she died simply from exhaustion. In a third case of cancer of pylorus, in which the patient was in a state of extreme inanition, I made a gastro-duodenostomy a few weeks ago, using the smallest of Murphy's buttons, as the others of my set were all in use. For seven days everything went well, vomiting had ceased, and the patient was improving and feeling well, when she suddenly complained of severe burning pain in the abdomen, as if "melted lead was being poured down among the bowels." She collapsed and died in two hours. The post-mortem showed that the button had slipped out of the stomach, leaving a large opening, through which the contents had entered the abdominal cavity. The small diameter of the button necessarily allowed only a small brim of the hypertrophied wall of the stomach to be compressed between the cups, and the accident occurred

partly on this account, partly from muscular contractions of the stomach. I consider it of the utmost importance to publish this case, and shall, in all future gastro-enterostomies, use a running suture around the button as a means of safety. I do not believe it would have occurred in a cholecyst-enterostomy, where the muscular force, probably, is lacking.—Herman Mynter, M.D., in the *Buffalo Medical and Surgical Journal.*

Feeding of Intubated Children.

Paine (*Albany Medical Annals*) refers to the paroxysms of choking and coughing liable to be excited by efforts at swallowing, the danger of the expulsion of a tube when no one is at hand able to replace it, the discomfort of getting fluids into the air passages, and the deterioration of vital force and blood from lack of nourishing food. He has resorted to feeding through the nose by a stomach tube; the nares and fauces are first sprayed with a two per cent. solution of cocaine, and a new soft rubber catheter (No. 6 or smaller) is well oiled and slowly and carefully passed through the least obstructed nostril.

A rapid movement will carry it below the highly reflex area of the larynx, and the remainder can be introduced slowly. The No. 6 catheter will not enter any of the O'Dwyer tubes, except possibly the largest. The entrance of a small tube into the larynx will be immediately revealed by the current of air forced through it, while in the œsophagus it will excite the act of swallowing. It should be introduced thirteen or fourteen inches and the desired nutriment slowly passed into the stomach by a fountain syringe or simple catheter and funnel, after which the tube can be slowly withdrawn. This procedure offers the advantages of the easy introduction at regular intervals of sufficient concentrated nutriment, stimulants, and medicines, the removal of aggravated thirst, and ability to feed the patient while in any position.—*Philadelphia Polyclinic.*

PÆDIATRICS AND ORTHOPÆDICS

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Methylene Blue in Noma.

G. F. Kostuerin (*Vratch*, No. 32, 1894, p. 893) relates two cases of noma, in which, after all the usual measures (actual cautery, perchloride of iron, thymol, iodoform, etc.) had failed, he resorted to hourly painting the parts with a twenty-five or thirty per cent. aqueous solution of methylene blue. In a few hours fœtor disappeared and sloughs began to fall off, while, later on, cicatrization set in. One of the patients ultimately died from exhaustion, but the other recovered.

Gastrotomy for the Removal of Foreign Bodies.

In the *British Medical Journal*, November 3rd, 1894, Mr. Mayo Robson gave an account of a case in which he had successfully removed, by gastrotomy, the following articles: 47 cast-iron garden nails, 1⅝ inch long; 93 brass and tin tacks, ½ inch to 1 inch long; 12 large nails, some brass-headed; 3 collar studs; 1 safety pin; 1 sewing needle. They had been swallowed by a child aged 10, during the course of the previous eight months. The wound healed by first intention, and the patient made a complete recovery. The symptoms were obscure until a clue was obtained by the vomiting of a nail. Mr. Robson dwelt on the marked effect of transfusion of saline solution in combating shock.

Adenoid Growths in the Dome of the Naso-Pharyngeal Space.

Ray J. Morrison, Lousville, Kentucky (*Med. and Surg. Rep.*, Phila., 1894, lxx., 74), summarizes as follows:

(1) The majority of cases of chronic nasal obstruction in children are due to the presence of adenoids in the naso-pharynx.

(2) Mouth breathing, snoring, wakefulness, defective mental development, bad teeth, deformed chests, and deafness result from this obstruction.

(3) The recurring earaches and pus discharges from the ear, persistently resisting treatment directed to the ear, are the result of the presence of adenoids, and, in a majority, prompt relief follows surgical removal of the growths.

(4) Many of the ear diseases of adults and so-called post-nasal catarrhs are the result of adenoids that had not been recognized or treated in early life.

(5) That, while adenoids will apparently disappear as adolescence is attained, they never entirely atrophy, but leave fibrous stumps and adhesions to the Eustachian tube.

(6) Operation for their removal should be undertaken under an anæsthetic, and thorough removal accomplished.

(7) The operation is reasonably safe, and, besides giving decided relief to the local symptoms in the throat and ear often shows wonderful improvement in the general physical condition.

Antitoxin Treatment of Diphtheria.

In the last number of *The British Medical Journal* (November 3rd, 1894), three cases of diphtheria are reported in full, in which injections of Aronson's antitoxin serum were used.

Case 1. Æt. 11 years. Taken ill Oct. 19th. Next day tonsils and uvula covered with membrane; from portions of this cultures of Klebs-Leoffler bacillus were obtained. Oct 21st: 19.5 c.c. injected. That evening temperature fell to normal. This was followed by rapid detachment of the membrane and reduction of glandular enlargement, which had previously been marked. Oct. 23rd: Tonsils and palate almost free from membrane.

Case 2 (Dr. Fowler). Æt. 13 years. Began to feel ill on Oct. 12th. Admitted to hospital Oct. 14th. Right tonsil covered with thick membrane, while over left was a thin film. Slight glandular swelling. Temperature, 102.5°; pulse, 100; respiration normal; 2 c.c. Aronson's antitoxin serum injected into left arm. A chlorine mixture to be sprayed on throat every two hours. At 10 p.m. temperature was 102°; at 6 a.m. it was 99.4°, and, on the evening of the 16th, 98.8°. The membrane had not increased, and patient felt better. Oct. 17th: Morning, temperature, 99°; pulse, 56; tongue moist; left tonsil clean; and membrane on right

was separating. Oct. 18th: Temperature normal. Improvement. Oct. 19th: Throat quite clean. Albumin in urine.

CASE 3 (Dr. Makeling). Æt. 6½ years. Taken ill first on Oct. 1st. Had headache and chills. Oct 6th: Throat became sore. There was earache, with slight offensive discharge from the ears. First seen Oct. 7th. Membrane on both tonsils, uvula, and palate. Glands at angles of jaws swollen and painful. Temperature, 100.6°; pulse, 130. Urine scanty and highly albuminous. Mixture of tr. ferri mur., quin. sulph., and pot. chlor. given, and throat sprayed with carbolic acid (1 in 60). Oct. 8th: No improvement. Pulse, 132; temperature, 102°. Marked whistling stridor and falling of intercostal spaces. 5 c.c. Aronson's antitoxin serum injected. One and a half (12.30) hours after injection, temperature 99°; no change in pulse. At 1 p.m. child expectorated large piece of membrane. At 2.30 pulse 120, stronger; temperature, 98.8°. Second injection of 3 c.c. antitoxin given. Oct. 10th: Temperature, 97.8°; pulse, 108. Improvement continued. Large quantity of membrane expectorated during afternoon. Oct. 11th: Child still improved during early part of the day, but breathing became difficult, and tracheotomy was done. This gave marked relief, but after a time the pulse began to fail. Green, foul-smelling stools were voided. Child died at 11 p.m.

PLEURITIS WITH PURULENT EFFUSION CURED BY ASPIRATION.

A case of pleuritic effusion cured by aspiration is related by James Carmical (*Edinburgh Medical Journal*, September, 1894). The patient, a little girl of one year and nine months, had been ill for five weeks before admission with slight cough, and was becoming feeble and anæmic, Physical signs of effusion on right side. The pleura was aspirated and twelve ounces of pus removed. Two days afterwards aspiration was again done, and three ounces of pus withdrawn. Five days later the process was repeated, and four ounces removed. Again, three days later, three ounces were removed. It was now decided to drain, but, on incision, no pus escaped, and the wound was at once closed, and healing by first intention insured. Five days after incision aspiration was again tried, this time bringing two and one-half ounces of pus. No further aspirations required, the child making a complete recovery. Discharged well two months after admission. In all, five aspirations were done. Six months after leaving the hospital no difference could be detected in the physical signs on the two sides of the chest.

PATHOLOGY

IN CHARGE OF

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The Histology of Chronic Gastritis.

(Ubrik. Quensel, *Nordiskt Medicinskt Arkiv.*, xxv. 5, Mèmotre, pp. 24-34.) In the first part of his thesis the author takes up the atrophy of the gastric mucosa. He examined the stomachs of three cases of pernicious (progressive) anæmia. The first was that of a man of thirty-seven years who had suffered since his eighteenth year from a progressive gastric catarrh. Six months before death he developed all the signs of pernicious anæmia. On examining the gastric juice, neither hydrochloric acid, pepsin, nor rennet was found, but a small quantity of lactic acid. At the autopsy the following modifications were found: Ecchymoses of the skin and endocardium, fatty degeneration of the myocardium, lobular pneumonia, follicular enteritis, bone marrow red and embryonic. The stomach wall was of the usual thickness, the mucosa pale; a few polypi were found at the cardiac end. The second case was that of a man thirty-two years of age, who, four years before his death, had commenced to suffer from acid and glairy regurgitations, and sometimes vomiting; six months later symptoms of pernicious anæmia came on. These symptoms improved after some time in the hospital, but again became worse, and finally brought on death. The examination of the gastric juice showed the presence of lactic acid, but the absence of hydrochloric acid, pepsin, or rennet. At the autopsy the following conditions were found: Anasarca, ascites, ecchymoses of the skin and peritoneum, follicular enteritis, marrow red and embryonic, the gastric mucosa very much thinned in all the cardiac region, and particularly in the middle third of the organ. The third case was that of a man fifty-eight years of age, who had, during six months, become quite pale and weak. On entering the hospital, it was diagnosed

pernicious anæmia. At the autopsy were found ecchymoses of the skin and pleural pulmonary œdema, fatty degeneration of the myocardium, no change in the marrow; in the stomach the submucous tissue was thickly œdematous, the mucosa was covered with a thick, pale, tenacious mucus. On microscopic examination, M. Quensel found in the three cases a very much advanced interstitial gastritis, with much atrophy of the glands. These changes were found almost entirely in the cardiac end, only very slight alterations being found at the pyloric. After a review of the work already done on this subject, the author goes on to the question of the bearing of these changes as an etiological factor in pernicious anæmia. He does not think that the stomach change can be the only cause of this blood disease. At the same time he does not but admit that progressive pernicious anæmia and gastric atrophy usually go hand in hand; so far nothing more definite can be said. In the second part of his thesis M. Quensel gives a résumé of the histological changes in chronic gastritis. He bases his observations on the three cases above mentioned, and on nineteen others, a more detailed account of which he gives in the third part of his paper. In reference to the etiology of these cases, gastritis in four cases accompanied cancer of the stomach; in five, pulmonary tuberculosis; in one, pseudoleucæmia; in one, organic heart disease; in two, chronic nephritis; in three, alcoholics; in one, senile (man eighty-five years old). In spite of the different etiologic factors the author has found that in all the cases the changes were of the same nature, with the one exception that they were in different stages of development. The author contends that a histological division of chronic gastritis should be made into interstitial and parenchymatous chronic gastritis. M. Quensel did not have at his disposal material illustrative of this last division, and trusts to the literature on the subject. In this paper he adheres particularly to the interstitial form.

The author has shown that the neoformation of connective tissue, which constitutes the chief alteration and the essential one, commences always at the inner surface of the mucous membrane, whence it gradually spreads more deeply, thus forming a type to which he gives the name descending interstitial gastritis. As the neoformation of connective tissue goes on the glands disappear more and more, until finally there is a complete atrophy of the gastric mucosa. In the early stages of the process the author has not been able to make out any change in the epithelial cells. In the more advanced stage, he has often found a granular degeneration of the chief cells, but has never found any in which there was fatty degeneration. The border cells were made out in nearly every case, even when hydrochloric acid was absent clinically. In two cases only, when the gastric juice was shown to be free of hydrochloric acid, were these cells

absent, but their disappearance may have been correlative to cadaveric changes, which could not be excluded in these two cases. M. Quensel specially mentions a case where all the glands of the cardiac region were of the simple tube form, lined even to the bottom of the glands with cells resembling the surface epithelium. Quite a number of these cells showed mucous degeneration.

The author has found in a certain number of other cases the same changes in the glands in circumscribed spots, as well at the pyloric as at the cardiac end of the stomach. He also mentions a diffuse fibrosis of the stomach in a woman aged thirty-seven years. The submucosa was considerably thickened with sarcomatoid tissue. The mucosa, on the contrary, showed no considerable changes, and from this he has been led to admit the probability that the process might start in the submucosa. M. Quensel makes an exhaustive observation on certain homogeneous concretions formerly observed in chronic gastritis by Sachi and various other authors. They are from 4 to 30 *m* in diameter, and he has been able to observe how the large ones are formed from a fusion of smaller ones. The number varies in each case; sometimes they are very numerous, and are found chiefly in the superficial parts of the mucosa. They are always situated in the connective-tissue spaces, and not in the blood vessels. In the unstained state they are yellowish, and slightly glistening; they are deeply colored with cosin, acid fuchsin, and prussic acid. Weigert's method of staining fibrin has a specific reaction on these. Concerning the histogenesis, M. Quensel attributes their origin to the hyaline degeneration of the red blood corpuscles; a degeneration which does not take place in the blood vessels, but only when the red corpuscles, after diapedesis or rupture of a vessel along with an inflammatory process, have gotten out of the blood vessels into the lymph spaces. Hyaline transformation of the red blood corpuscles is much more common in chronic gastritis than is pigmentary transformation, which M. Quensel has, only on two occasions, and then in an insignificant degree, been able to observe. —*Rev. Internat. de Bibliog. Méd.*

The Influence of Bleeding on the Absorption and Toxicity of Drugs.

(F. A. Fodera, *Archivio di farmacol. e Terapeut.*, 1894.) Bleeding, as Magendie, hastens absorption very much, and diminishes the resistance of the organism to poisons, at least to nerve poisons (stychnine), which is easily explained. Anæmia, whatever be its cause, renders the central and peripheral nervous system more excitable.—*Rev. Internat. de Bibliog. Méd.*

Three Specimens of Cardiac Tumors.

(Ludvig Hektoen, *Medical News*, 1893.) Neoplasms of the heart are amongst the rarest; there are actually only 110 or thereabout on record. These three cases are particularly interesting. The first was in a woman fifty years of age, suffering from uterine cancer. The autopsy revealed a cancerous nodule in the wall of the right ventricle. The second was in a boy of twelve years, having an osteo-sarcoma of the tibia, for which disarticulation at the knee had been done, and afterwards the same at the hip. After death a large sarcomatous nodule, nearly filling the right ventricle, was found. The third was in an Indian woman of about fifty years of age. There were no clinical observations. At the post-mortem examination a primary, small round cell sarcoma was found in the heart.—*Rev. Internat. de Bibliog. Méd.*

On the Pathology of Infection in the Embryo.

(Pr. Maffuca, *Il. Policlinico*, Jan. 15, 1894.) The author has endeavored, not so much to observe how infection takes place in the embryo, as to how the infected embryonic tissue itself reacted. With this object he has studied the action of anthrax, hen cholera, Friedlander's pneumococcous of aviary and human tuberculosis, and of their toxic properties on the embryo chick, and on the embryos of rabbits. The following are some of the general conclusions he has come to from these researches: The living embryo does not allow of the growth of pathogenic microbes in its tissues, except under very exceptional conditions; it is capable of destroying, attenuating, or storing them up to allow of their growth after the embryo has escaped from the egg. Some microbes, non-pathogenic for the adult chicken, are pathogenic for the embryo. This one conclusion refers more to the chick than to the rabbit fœtus. These conclusions are drawn from observations made on nearly one thousand embryo-chicks and one hundred and fifty rabbit fœtuses. The author proposes to follow out these researches.—*Rev. Intern. de Bibliog. Méd.*

HYGIENE AND PUBLIC HEALTH

IN CHARGE OF

WILLIAM OLDRIGHT, M.A., M.D. Tor.,

Professor of Hygiene in the University of Toronto; Surgeon to St. Michael's Hospital;

AND

E. HERBERT ADAMS, M.D., D.D.S.

Compulsory Vaccination.

Dr. W. E. Quine, of Chicago, before the Illinois State Medical Society, said that vaccination was introduced to the attention of the medical profession by Edward Jenner, in 1798, as the result of investigations which extended over a period of twenty years. During the century preceding, according to the estimates of our most authoritative writers and statisticians, smallpox, "the most terrible of all the ministers of death," destroyed in Europe alone 50,000,000 human lives. Think of it! Five hundred thousand deaths every year from the most loathsome pestilence known to man; thirteen hundred deaths every day, nearly a death every minute for a hundred years. If it be true, as is believed by enlightened people, that universal vaccination and revaccination, efficiently done, will put an end to all this desolation and horror from epidemics of smallpox, and finally eradicate the disease altogether, it would appear that the discoverer of vaccination is the greatest benefactor that mankind has known. Alexander was great. Cæsar was great. Hannibal was great. Napoleon was great. They were all great—as destroyers. What have they done? What have all the kings and potentates and warriors of earth done, in comparison with one member of the medical profession in the direction of adding to the sum total of human happiness and human life? Are such conceptions of the possibilities of vaccination an idle dream?

As proof of the protective influence of vaccination, many examples were cited by the speaker, and but one will suffice here: A village in Leicestershire of thirteen hundred inhabitants was visited in 1872 with smallpox. All but two of the inhabitants were vaccinated, and they escaped the disease. The two unvaccinated persons contracted the disease and died of it.

Age for vaccination. Children are more liable to smallpox than adults, and more liable to die when attacked. The younger the child, the greater the danger; hence vaccinate during the first year of life.—*The Journal of the American Medical Association.*

National Live Stock Sanitary Association.

A National Live Stock Sanitary Association has been recently organized in Washington, D.C. In view of the prominence which has recently been given to diseases of live stock in Canada, the establishment of such an association would obviously be of great benefit to the financial and sanitary interests of this country.

The Valley of Mexico.

The drainage of the valley of Mexico has been undertaken again. The estimated cost is $3,500,000. The contract was made by the authorities of the city of Mexico on June 4th. The work is to be finished by May 1st, 1896.

Insomnia.

It is pointed out by Mr. Huxley that nature's plan for curing insomnia is to limit the supply of oxygen to the blood, as the cat and dog bury their noses in some soft hollow in their hair or fur; birds put their heads under their wings and soon fall asleep. Mr. Huxley suggests that those suffering from insomnia should cover their heads with the bedclothes and breathe and rebreathe only the respired air; when drowsiness is produced it is easy to go on sleeping, and the bed coverings can be pushed aside and as much fresh air obtained as is needed.—*American Practitioner and News.*

Insane Asylums that are Simply Prisons.

The address of Dr. S. Weir Mitchell before the American Medico-Psychological Association in Philadelphia was in the nature of a broadside aimed at the management of insane asylums in this country. The doctor finds little in the present system to commend. In the appointment of asylum superintendents, physicians, and nurses, nothing is as influential as a political pull. Asylums are simply prisons, and not hospitals conducted in an intelligent and scientific manner. They are not provided with modern medical advantages, such as masseurs, an electrical room, and hydrotherapeutic treatment. The nurses are not properly educated and examined. A far better system than the huge asylum would be separate small houses, with caretakers and appliances for work and recreation. The insane

should have work, when able to perform it, and they would prefer it to listless idleness. If the object of the insane asylum is to restore the patient to usefulness in society, the present methods of procedure, according to Dr. Mitchell, are deserving of nothing but denunciation. As the address was delivered in the presence of many asylum superintendents, it is likely to be productive of some pretty vigorous thinking, at all events.—*Pacific Record.*

A Sewerage System for New Orleans.

The Cresent City is to be congratulated upon the prospect of having constructed in the near future a complete and extensive sewerage system. If there is a spot on earth that needs sewers worse than New Orleans, the *Texas Sanitarian* has forgotten its geographical whereabouts. Twenty-eight deaths to every thousand inhabitants is a sufficient basis for the indictment and trial for manslaughter of every administration since the days of Ben. Butler.—*Texas Sanitarian.*

The Sanitary Institute.

The fourteenth congress and exhibition of the Sanitary Institute was held in Liverpool, commencing September 24th. The Lady Mayoress of Liverpool presided in the conference on "Domestic Hygiene." The various sections were: I. Sanitary Science and Preventive Medicine, under the presidency of Dr. Klein. II. Engineering and Architecture. III. Chemistry, Meteorology, and Geology.

Mortality of Tuberculosis.

Dr. Lagneau said that his investigation into the relationship existing between occupations and the development of tuberculosis showed that the greatest number of deaths from phthisis occurred in workers exposed to irritating substances in the respired air. In Switzerland 10 out of 100 stone-cutters die from phthisis. In England, of 1,000 deaths occurring in these workers, 340 were from phthisis. Tuberculosis makes cruel onslaught likewise in those individuals who habitually occupy a bent posture at their occupations, and in those who live sedentary and intellectual lives. Of 1,000 deaths in Italy among students and seminarians, 450 died of phthisis—that is, nearly one-half. In England, of a similar number of deaths in printers, 430 died of phthisis.

On the other hand, statistics show that it is quite exceptional for this disease to be the cause of death of those who live in open air. In Switzerland, of 1,000 deaths occurring in outdoor laborers and farmers, not more than one or two die from phthisis. A similar number of deaths in

Italy among shepherds and farmers shows only from forty-four to fifty-five deaths.

In France the sanitary statistics gathered from 665 towns show that the more the population is conglomerated, so in proportion are the inhabitants gravely infected with tuberculosis.—*Medical Record.*

A Statistical Study of Smallpox.

Welch, in a paper read before the Pan-American Medical Congress, has placed upon record the statistics of 5,000 cases of smallpox that have been under his care at the Municipal Hospital for infectious diseases in Philadelphia. Of these 2,831 were cases of unmodified variola, of which 54.78 per cent. died; and 2,169 of varioloid, modified by vaccination, of which 1.29 per cent. died. Nearly two-thirds of the cases were males, the death rate being about the same for both sexes.

Nearly one-sixth of the patients were of negro blood, and among these the proportion of deaths was larger than among the whites. But Welch points out that the proportion of the unvaccinated was correspondingly larger among patients of negro blood, and that comparing the unvaccinated of both races the mortality was almost exactly the same, viz., 58.5 for white and 58.54 for black.

The statistics but feebly indicate the value of vaccination, however, since they give no sign of the disfigurement of the unvaccinated who recovered and the comparative freedom from scars of those who had been vaccinated.

On admission, the presence and character (as good, fair, or poor) of vaccination scars was noted in each case, and the subsequent course of the disease seems to indicate that the quality of the marks has more significance, as indicating protection, than their number, although this also seemed to have some influence.

With reference to vaccination after exposure and prior to the appearance of the eruption, it was found that of seventy-four cases vaccinated longer than seven days before the appearance of the eruption but fifteen died.

As to revaccination, his experience leads him to place implicit confidence in its efficacy. The proportion of deaths among the vaccinated increases with the length of time that has elapsed; after fourteen years the deaths being about 9 per cent. of those who showed a good mark. After revaccination, death occurred in a smaller proportion of cases than after a previous attack of smallpox, and not at all in those who showed good scars.

As to second attacks, he has never seen an unmodified or severe case of smallpox in a person who was deeply and characteristically pitted from a previous attack, and during a service of over twenty years no person was admitted a second time for any form of the disease.—*Philadelphia Polyclinic.*

Dental Examinations of School Children.

The Berlin Society of Dentists has written to the magistrates of Berlin, proposing to establish dental examinations of school children at regular intervals, a sanitary measure which is already in practice in many schools of England and France, as well as in the Prussian Military College.—*Popular Health Magazine.*

Vaccination.

Before the introduction of vaccination, the mortality in Austria from smallpox was 62 per 100,000; in Prussia, 49. Since the introduction of vaccination the mortality has been two cases in 700,000. In Germany, where revaccination is compulsory, the death rate is one patient in every 1,200,000.

Children of Tubercular Parents.

The hygienic treatment of children born of tuberculous parents should begin at birth. If the mother is tuberculous she must not nurse the child. If possible, the child should be brought up in the country, or better still, if practicable, near the sea, or at least make long stays in the country, as the dangers of contagion are less frequent there than in the cities. Any sign of feebleness, such as rickets, anæmia, enlarged glands, etc., should receive due attention. Diseases of the respiratory tract, should be most carefully attended to, as they may directly prepare the soil preferred by the tuberculous germ.—*Popular Health Magazine.*

Editorials.

ELECTION PROTEST.

WE understand that a protest has been entered against the election of Dr. Spankie, of Wolfe Island, in Division 15. After a very exciting election, the votes were counted by the returning officer, Dr. A. S. Oliver, in the presence of scrutineers representing the candidates. The result was declared a tie, and Dr. Oliver gave his casting vote in favor of Dr. Spankie. The scrutineer of his opponent, Dr. Dickson, of Pembroke, had objected to several of the votes recorded for Dr. Spankie, on the ground that they were tendered by proxy. In former times such protests were settled by the council. It will be remembered that, after the election in 1889, Dr. Shaw, of Hamilton, was unseated by the council at the following session, and Dr. Miller was declared the representative of the division. Other cases of a similar kind had occurred before that time, and sometimes a considerable amount of ill-feeling was aroused. Such trials by the whole body of the council became so unsatisfactory in various respects that a change was thought desirable by many, including a majority of the members of the council. The recent amendments to the Medical Act provided that in future any such election trial shall be held by a county judge. In this instance the protest will be tried by His Honor Judge Price.

METHODS OF WARFARE.

IF any one cognizant of events were to ask, in all seriousness, whether the recent council elections were conducted in accordance with methods that reflected credit on a body of educated gentlemen, he would probably be regarded as a very innocent simpleton, who scarcely deserved a reply; or he might possibly be told that there was no tangible evidence of the existence of any very large number of educated gentlemen among the medical profession of Ontario. The contest between the "Old

Guard" in the council and the "Defence Association" has been intensely bitter—far beyond anything this province has ever seen before, in matters pertaining to medicine. Letters "by the ream" appeared in the lay press, telling the public of Ontario that the members of the Medical Council were guilty of "extravagance," "wastefulness," "transgressions of the law," "dishonesty," "untruthfulness," "fraud," and a few other somewhat objectionable peculiarities and idiosyncrasies.

It is only fair to add that the charges referred to were brought against men, not as private individuals, but as servants of the general profession, honored in having committed to their care a public medical trust. Criticisms of their acts were quite pertinent, but violent language such as that used by many of the critics was, to say the least, quite unnecessary and undignified. Unfortunately, many of the replies on behalf of the council were quite as violent as the attacks, while, at the same time, some of them were almost babyish in their weakness. At the last meeting of the council the retiring president delivered an address, able in character, but not altogether wise. Immediately thereafter the "Defence" champions rushed to the newspapers, and some of their letters were not simply violent—they were vicious. The ex-president was so seriously affected that he apparently lost his head, and published a letter which made no pretence of answering any arguments, but simply contained a coarse and vulgar personal attack on a leading member of the Defence Association. We have no desire to discuss this unfortunate business in detail, but we feel compelled to enter a very decided protest against such conduct, involving, as it does, a gross violation of all the decencies connected with journalistic controversies. If the warfare be continued, we hope that better methods will prevail on both sides.

THE NEW COUNCIL.

A LIST of the successful candidates will be found in this issue. We cannot say that the results of the elections have furnished any great surprises. It will be noticed that three of the most able and most prominent members of the Defence Association, Drs. McLaughlin, Sangster, and Armour, have been elected. Dr. McLaughlin was a member of the council many years ago, and is generally acknowledged to be an able and conscientious man. His election by acclamation is a popular one. Dr. Sangster distinguished himself in the recent battles as a fighter of ability, and we believe the majority of physicians in Ontario will be glad to see him in the new *parliament*. Personally, we regret the defeat of Dr. Cotton, whose character and ability fully qualify him for a seat in the

Council; but, considering the strength of the forces combined against him, his defeat by the leader of the Defence Association, in a division where the influence of that body was overwhelmingly strong, will create no surprise, and will leave no cloud of any sort hanging over him. The contest between the president, Dr. Philip, and Dr. Armour was conducted with great vigor on both sides. Dr. Armour was, so far as we know, the originator of the Defence Association. At all events, he has been from the first one of the most active workers in its ranks. Dr. Philip was, on the whole, an excellent member of the council, and was highly respected by his colleagues, as shown by his unanimous election to the presidency during the last session. All things considered, however, it is probably well that these three Defence men have been elected. They certainly represent a large portion of the electorate, and it seems a matter of justice that this trio should assume the responsibilities of office. Dr. Vardon, of Galt, another very active member of the Defence Association, was defeated by Dr. Brock, of Guelph.

Of the twelve territorial representatives in the last council only four remain—Drs. Bray, Williams, Henry, and Rogers. The election of Dr. Rogers is remarkable from the fact that it means the defeat of the able and well-known veteran, Dr. Bergin. The four mentioned will be fully able to represent the "Old Guard," and their election will be considered by a large proportion of the profession as a legitimate matter for congratulation. Drs. McLaughlin and Shaw, having been representatives before, should not be placed in the *freshman* class.

There will be an unusually large number of new men, from whom we will expect much. They are, as a rule, endowed with ability and good judgment. They are, speaking in a general way, *no party* men, and are not likely to go to extremes, either in the direction of radicalism or fossilism. We hope that partyism, if it be continued on the present lines of Defence and anti-Defence ideas, will be kept within the bounds of decency and order; and that any discussions of the burning medical questions of the times, though they may be animated, will not degenerate into unseemly wrangling. Upon the whole, we think the various electors have chosen wisely and well, and, as a consequence, we will have in the new council a body of medical legislators who will do credit to themselves and their constituents.

SUBSTITUTION BY INSTRUMENT MAKERS.

IN our report of the proceedings of the American Association of Obstetricians and Gynæcologists (pp. 794-5), our readers have probably noticed that Dr. Murphy, of Chicago, called the attention of the members to a defective button that was purported to be a Murphy

button. He pointed out the defects, and showed the particular danger that would arise from these defects.

A man's reputation, earned by hard and conscientious work, can easily be harmed by his friends. Men devise new operations and invent new instruments to aid their being properly carried out, report their progress, and, by every legitimate means, endeavor to aid others in repeating these operations. The only fair means of judging whether that particular procedure is a good one, and that the reports of the results attained are absolute, is by test repetitions of the operation; but these should be done with the same precaution, the same careful technique, and with instruments similar to those used by the inventor. Very few men investigate far enough the technique of an operation before proceeding to perform it, and some, by failure, bring discredit on the originator, or else rush into print with a modification, which is no modification except in adding a new name. Instrument makers purchase an instrument in the open market, for a sample, which may be defective in itself, and, in a great number of cases, never submit an instrument to the inventor for his opinion, but proceed to manufacture and cheapen the instrument, while still calling it by the original name. Bad results cannot help following, and the operation is blamed. It was a very striking instance of this that brought the matter to the writer's attention. Dr. Murphy, of Chicago, was requested to do an anastomosis at St. Michael's Hospital, Toronto, and he was handed a button, recently purchased by one of the staff, to use. He at once detected its faults, and pointed them out, and showed a button that was properly made that he had in his pocket; yet several of us had seen the button, but did not detect these very dangerous defects. We cannot be too careful, in purchasing instruments, to get proper quality, and to do so we often have to pay a little more than supposedly similar goods could be purchased from other dealers. It is best always to buy from reliable dealers, and those who guarantee their goods with their reputation. Medical ethics does not permit of instruments being patented, but there are instances where it might save lives. We remember that Dr. Otis, when he devised his urethratome, thought of these impositions of instrument makers, and wanted to patent it and hand the patent to the Academy of Medicine, but they would not consent. Yet that instrument has been badly curved and twisted, so that it was impossible to do Otis' operation as done by him; yet it was called and sold as Otis' urethratome. We could give other instances, but that would be superfluous. The only moral that can be drawn from the above is to always familiarize oneself with the *details* of an operation, and any new device that is to be used in the procedure, and purchase the latter from a reliable source.

Correspondence.

THE RESULT AWAITED AND THE RESULT ANTICIPATED.

DEAR EDITOR,—"If I had appendicitis, I would lie in bed, take salines, apply poultices, and await the result."—M.D. (possibly a reincarnation of B.C. 710), in a recent medical journal. Who among us, even in a most limited sphere, cannot recall cases of this affection where the attendant did *await the result*, which result was occasionally of greater interest to the undertaker than to the physician? This subject has been so thoroughly threshed out that repetition should be unnecessary, but still, with all the light that has been thrown upon this region of the abdomen, the slaughter continues, encouraged by such statements as the one I have quoted. By way of illustration of the "await the result" method, I give notes of a case that came under my observation while practising in Bruce county, Ont., previous to the ushering in of the appendicitic era, and also, by way of comparison, notes of a case very similar in a rural district forty miles from town, but happily happening after the commodious and convenient "inflammation of the bowels" had been resolved into its component parts:

CASE 1. J. P., æt. 39, farmer, overheated and chilled, presented symptoms now recognized as indicative of appendicitis. Received the orthodox poultice, etc. In a few days I was comforted with the thought that "the inflammation of the bowels was under control," temperature fell to normal, pain ceased, and all that remained was a distended abdomen with increased dullness towards the right side. Believing my patient convalescing, I discontinued regular daily attendance. A few days later I was called to explain a sharp pain in right fossa occurring after a motion of the bowels. Neuralgia, muscular rheumatism, and a few other convenient terms were used, to the apparent satisfaction of the friends. Next day found the patient comatose. The *result awaited* was rupture of abscess into the peritoneal cavity, septic inflammation, and death.

CASE 2. J.E., æt. 31. First attack, course of disease similar to that of Case 1. Had received well-directed treatment for upwards of a week,

when attendant concluded that something other than poultices and salines were required. When seen, pulse was 80, temperature normal, and patient comfortable, abdomen tympanitic, no dullness perceptible per rectum, Douglas' sac distended and tense. Upon opening the abdomen (Dr. Jones), the deeply congested and inflated intestines filled the opening, and proved troublesome by obstructing the field. In the right fossa was an abscess containing two ounces of pus; appendix gangrenous, except base, which was ligated. A second abscess, completely distinct from the former, was found occupying the pouch, and containing about six ounces of pus. The abdomen was thoroughly irrigated with boiled water, adhesions separated, and drainage applied. Recovery was somewhat retarded by defective after-dressings, but the ultimate result left nothing to be desired.

With such cases not infrequent in our experience, and with many reported in the journals, it seems to be possible that the definite teaching of surgery is still meaningless to some of our worthy members. If the results of surgical interference in this disease were disastrous, we could excuse such expressions; but with a mortality almost *nil* there is no excuse for such a statement as, "If I had appendicitis, I would lie in bed, take salines, and await the result."

ERNEST HALL.

Victoria, B.C.

Book Reviews.

Books received :

INEBRIETY AND NARCOMANIA: Its Etiology, Pathology, Treatment, and Jurisprudence. By Norman Kerr, M.D., F.L.S., Fellow Med. Soc., London ; President Society for Study of Inebriety, etc. Third edition. 8vo., 780 pages ; $5. London : H. K. Lewis, 136 Gower street, W.C.

MEDICAL NURSERY. Notes of a lecture given to the probationers at London Hospital by the late James Anderson, M.D., F.R.C.P. Edited by Ethel F. Lamport, Associate of the Sanitary Institute, etc., etc. With an introductory biographical notice by Sir Andrew Clark, Bart. Crown octavo. London : H. K. Lewis, 156 Gower street.

A MANUAL OF SURGERY, GENERAL AND OPERATIVE. By John Chalmers DaCosta, M.D., Demonstrator of Surgery, Jefferson Medical College, Philadelphia ; Chief Assistant Surgeon, Jefferson Medical College Hospital ; Surgical Registrar, Philadelphia Hospital, etc. One very handsome volume of over 700 pages, with a large number of illustrations. (Double number.) Price, cloth, $2.50 net.

TEXT-BOOK OF NERVOUS DISEASES. Being a compendium for the use of students and practitioners of medicine. By Charles L. Dana, A.M., M.D., Professor of Nervous and Mental Diseases in the New York Post-graduate Medical School and in Dartmouth Medical College, etc. One volume post octavo, 525 pages. Illustrated by 204 wood engravings, over half original. One plate. Bound in red parchment cloth. Price, $3.25. William Wood & Company, New York.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS : A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, M.D., Queen's University ; Fellow of the Royal College of Physicians and Surgeons, Kingston ; Professor of Urology and Urinary Diagnosis at the Chicago Post-graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys" ; also of "Diabetes : Its Causes,

Symptoms, and Treatment." With numerous illustrations, including photo-engravings and colored plates. In one crown octavo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

TEXT-BOOK OF HYGIENE: A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American standpoint. By George H. Rohé, M.D., Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiène, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Royal octavo, 553 pages. Cloth, $3 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

A MANUAL OF THERAPEUTICS. By A. A. Steven, A.M., M.D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Demonstrator of Pathology in the Woman's Medical College, Philadelphia; Physician to St. Mary's Hospital and to the Southeastern Dispensary; Pathologist to St. Agnes' Hospital. Philadelphia: W. B. Saunders, 1894.

This work is intended to place before the student a practical outline of modern therapeutics, and, considered as a whole, is deserving of high commendation. The book may, for the purpose of reviewing, be divided into five parts.

Part I. is devoted to a classification of drugs under their pharmacological heads, and, if fault may be found, we are of the opinion that the author has erred on the side of brevity. A description of drugs, alphabetically arranged, occupies the succeeding section. More attention is paid to therapeutics and administration than to physiological action. The student will find described in this division all the recently discovered preparations. Then follows a short discussion on remedial measures other than drugs, such as electricity, massage lavage, disinfection, etc. The latter part of the work is principally devoted to applied therapeutics, probably the most valuable portion of the work. The application of the particular drugs which have been found most useful in the treatment of each disease is here discussed. The volume closes with tables of doses, indices of diseases and remedies, and a short chapter on incompatibility. The volume contains 450 pages, and is a very creditable specimen of printing and binding.

DISEASES OF THE SKIN: AN OUTLINE OF THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. By Malcolm Morris, F.R.C.S., Surgeon to the Skin Department, St. Mary's Hospital, London, etc. In one 12mo. volume of 572 pages, with 19 chromo-lithographic figures and 17 engravings. Cloth, $3.50. Philadelphia: Lea Brothers & Co., 1894.

We have read, with a great deal of pleasure, the above work, and can thoroughly recommend it both to the practitioner and student. It is particu-

larly adapted to the use of students. It is concise, complete, and up to date, and, at the same time, no space is wasted in useless words. Mr. Morris is one of the foremost English dermatologists, and has the happy faculty of imparting his knowledge in a pleasing manner. The arrangement of the work is one to be commended, and the first three chapters, on "Pathology of the Skin," "Classification," and "Principles of Diagnosis," will lead many an erring student into the right road if their precepts are followed. The pathology throughout the whole work is right up to date, and treatment is fully considered. We do not appreciate the colored drawings as we would like, from the too high coloring. It is a fault with most colored plates in skin diseases. The drawings are admirable, but the coloring too high. It is the fault of the lithographer, not the artist. The Germans are the only ones who appear to color correctly.

The typography, presswork, and binding are in the very best style of Lea Brothers & Co.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS. With especial reference to the application of remedial measures to disease, and their employment on a rational basis. By Hobart Armory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical Hospital; Consulting Physician to the Franklin Reformatory Home; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London, etc. Fourth edition, enlarged and thoroughly revised. Philadelphia: Lea Brothers & Co., 1894.

The value of this excellent work to the medical profession is well evidenced by the fact that no less than four editions have been issued in as many years. The volume is divided into four parts devoted respectively to general therapeutical considerations, drugs, remedial measures other than drugs, and diseases with their special treatment. Part I. deals with modes of administration, dosage, absorption, strength, incompatibles, and a classification of drugs under their various therapeutic heads. In Part II. all the drugs in general use, including those more recently added to the list, such as methylene blue, dermatol, condurango, convallaria, chloralose, piental, piporazine, trional, etc., are dealt upon. Such drugs are arranged alphabetically, and each drug is described as to sources or preparation, physiological action, therapeutics, toxic properties, and method of use. Such remedial measures as acupuncture antiseptics, heat, cold, climate, foods for the sick, enteroclysis, intravenous injection, rest cure, etc., are extensively dealt with in Part III. The concluding portion of the book is occupied with methods of treatment in the different diseases classified alphabetically. Not only has the author indicated the drugs best adapted to particular diseases, but has entered carefully into the question as to the best treatment at particular stages and conditions. Throughout the work all weights and measures are given both in the metric and English system, so as to render it uniform with the new United States Pharmacopœia.

In conclusion, we may say that we know of no work more suited to the needs of the student and the general practitioner who desires to have a greater knowledge of modern therapeutics.

A SYSTEM OF GENITO-URINARY DISEASE, SYPHILOLOGY, AND DERMATOLOGY. By various authors. Edited by Prince A. Morrow, A.M., M.D. In three volumes. Published by D. Appleton & Co., New York. Toronto agency, Geo. N. Morany, 63 Yonge street. Subscription only. Volume III., "Dermatology."

We have before us the last volume of the above system—"Dermatology." It, like its predecessors, is a most complete collection of the good works of the many authors. It is impossible to pass each chapter in review before us, and almost as difficult to choose which to speak of in particular. All are good, up to date, and complete. What the general practitioner most requires is to be found here—aid to diagnosis and treatment. He is not overburdened with historical facts and obsolete pseudonyms. History and titles are referred to, but no space is wasted. The index of this work is a valuable acquisition in itself. It is very thoroughly arranged, and is a great aid to the busy practitioner in his hunt for reference material.

Possibly the most complete and really new material in the volume is the chapters on "Leprosy," by Dr. Prince A. Morrow. These embrace the researches made by Dr. Morrow during his trip to Hawaii, and include a most interesting series of photographs made by him at the same time. Every phase of the disease is beautifully pictured in all its hideous manifestations. It is unnecessary to say that the chapter reads like a serial story, so beautifully is it woven together.

This is the day of bacteriology, and that particular exciting cause of many forms of skin lesion has received a very thorough examination. We can recommend this system to every practitioner, and feel sure that it will be of most practical value to him. The binding, typography, presswork, etc., are of the highest order, as all of the works of D. Appleton & Co. are.

A SYSTEM OF LEGAL MEDICINE. By Allan McLane Hamilton, Consulting Physician to the Insane Asylums of New York City, and Lawrence Godkin, Esq., of the New York Bar. With the collaboration of Prof. Babcock, etc. Illustrated. Volume I. New York: E. B. Treat, Cooper Union, 1894.

This encyclopædia of medical jurisprudence will be published in two volumes. The first volume, which is a handsome book of nearly 700 pages contains contributions on the following subjects: "Medico-legal Post-mortem Examinations"; "Death in its Medico-legal Aspects"; "Blood, and Other Stains"; "Identity of the Living"; "Identity and Survivorship"; "Homicide and Wounds"; "Poisoning"; "Toxicological Importance of Ptomaines and Other Putrefactive Products"; "Life Insurance"; "Accident Insurance"; "The Obligation of the Insured and the Insurer"; "Legal Relations of Physicians and Surgeons to Their Patients and One Another"; "Indecent Assault upon Children."

The contributors, both legal and medical, are men of high standing in the United States, and have sufficient weight to speak with undoubted authority on the various subjects connected with medical jurisprudence. Mr. Lawrence

Godkin tells us that the science of forensic medicine had its beginning in 1553, when the Emperor Charles V. of Germany directed that the opinions of medical men should be taken in cases of death by violence with a suspicion of a criminal agency, and goes on to give a very interesting account of its progress up to the present time.

Some contributions by eminent lawyers give much valuable information on subjects which frequently arise in court, but are not, as a rule, fully treated in our ordinary text-books on medical jurisprudence. Much new material in the way of experimental work is presented in this volume, especially with respect to gunshot wounds and blood stains. The report of the investigations of Dr. Victor C. Vaughan in regard to ptomaine poisoning is exceedingly interesting, and, in some respects, rather startling. The chapter on life insurance deserves special mention, being the best we have seen on the subject.

It is very difficult, in a brief review, to give anything like an adequate idea of the merits of this work. As to the first volume, we find nothing that deserves adverse criticism. All the chapters are admirable, and the matter all fully up to the times. We believe every medical practitioner should have this "System of Legal Medicine."

CHOREA AND CHOREIFORM AFFECTIONS. By Wm. Osler, M.D., F.R.C.P., London; Professor of Medicine Johns Hopkins University, Baltimore, etc. London: H. K. Lewis, 136 Gower St., W.C.

In this latest work Professor Osler deals exhaustively with the interesting affection chorea, and the not less interesting, if rarer, affections closely allied to it. The author draws largely upon the records of his own cases and those of his colleagues in the Infirmary for Diseases of the Nervous System, Philadelphia. The list taken from this source includes 554 cases. In addition to this wide experience, medical literature, current and remote, has been utilized to place before the reader whatever may be of interest, whether in the way of historical views as to nature and pathology, or peculiar phases of the disease. The author deals at length with the heart inflammation so commonly met with in chorea. The records cited indicate in what proportion of cases is endocarditis likely to occur, and also in what proportion is this endocarditis followed by permanent heart derangement. Of 554 cases 170 presented heart murmurs, and in fatal cases the frequency of endocarditis is so great as to make the statement true, "that there is no known disease in which endocarditis is so constantly found, post mortem, as chorea." Of 140 cases examined by the author and his colleagues two or more years after the attack of chorea, there were signs of organic heart disease in 72.

With reference to the pathology of the disease there is still much that is obscure, and what had been written early in the century would still apply. Regarding the relation of chorea to acute rheumatism, the writer puts the question: "Are its symptoms merely manifestations of the rheumatic poison, or does the arthritis bear the same relation to chorea as the joint inflammation to gonorrhœa or to cerebro-spinal fever?"

Coming to choreiform affections, chapters are devoted to the various forms of tic, habit spasms, etc., and cases are related to illustrate the peculiar phases of these choreiform movements and their association with peculiar mental states and special sense derangements.

A chapter is devoted to chronic progressive chorea in chronic hereditary chorea, sometimes termed Huntington's disease. Histories of two families in whom this condition passed from one generation to another are included in this chapter.

Altogether, the book contains within its 125 pages a wealth of information on the subject, and represents a vast amount of work on the part of its author. We are glad to have had an opportunity of reading the book, and can confidently recommend it to our subscribers as a work calculated to broaden one's ideas as to the true nature and scope of chorea.

Medical Items.

CORRECTION.—In the report of a case of Primary Diphtheritic Laryngitis in our last number a misprint occurred. The quantity of calomel sublimed was "thirty" grains, not "three" grains as stated.

DR. MAY, of Chicago, was in town in October to attend his brother's funeral.

DR. H. E. BUCHAN, who has been on the staff of the asylum in Kingston, has been transferred to London.

DR. THOS. S. CULLEN (Tor., '90) has been appointed assistant in gynæcology in Johns Hopkins Hospital.

DR. BRUCE L. RIORDAN, of this city, was elected third vice-president of the National Association of Railway Surgeons.

DR. J. H. AUSTIN, of Brampton, has just returned from England. He is recovering from pneumonia, contracted in London.

DR. JAMES M. FORSTER, late of "Orchard House," Hamilton, has been promoted to be assistant superintendent of Kingston Asylum.

DR. BRUCE SMITH, who received an appointment in the Hamilton staff some months ago, has left Seaforth, and is now in charge of "Orchard House."

DR. N. H. BEEMER, who has been appointed superintendent of the Asylum for Insane, Mimico, was instructed to take charge of the institution November 15th.

DR. OLIVER WENDELL HOLMES, the distinguished ex-professor of Harvard, and well-known author, died at his home in Beverley, Mass., October 7, at the age of 85.

DR. T. P. MCCULLOUGH has sold his practice at Everett, Ont., to Dr. Kingston, of Stirling. Dr. McCullough is leaving for New York, where he will study diseases of the eye, ear, etc.

DR. C. R. DICKSON was elected second vice-president of the American Electro-Therapeutic Association, and appointed chairman of the Standing Committee on Electrodes. The association will hold its 1895 meeting in Toronto, most likely in September.

DR. HUNTER ROBB, late assistant in gynæcology at the Johns Hopkins Hospital, has been elected to the chair of gynæcology in the medical department of the Western Reserve University.

DR. W. OSLER, of Baltimore, spent the greater part of the summer in England. After attending the meeting of the British Medical Association at Bristol he spent some time in London and Oxford. He paid a short visit to Toronto, September 24-28, on his return, after which he went to Baltimore.

DR. ARCHIBALD H. MACKINNON died in Everton, September 27, 1894, after a long illness. He took his course in the Toronto School of Medicine, graduating in 1877. He practised in Hillsburg for several years, and was highly successful as a medical practitioner, and greatly respected as a high-minded citizen. He removed to Toronto in 1892, but failing health prevented him from doing much professional work.

PHILADELPHIA AS A MEDICAL CENTRE.—According to the Philadelphia newspapers, that city is again asserting its right to special prominence as a medical centre. The census of the medical schools is as follows: University of Pennsylvania, 875; Jefferson, 700; Hahnemann, 325; Medico-Chirurgical, 300; Woman's, 200; total, 2,400.

The following candidates have passed the primary examination:—J. Beeket, Thamesville; W. L. Coulthard, Toronto; B. F. Churchill, Toronto; P. G. Goldsmith, Peterborough; J. Gibbs, Bayview; D. Jamieson, Barrie; J. M. Jory, Norwood; J. Jardine, Toronto; Eleanor Lennox, Toronto; J. A. Marquis, Brantford; W. G. MacKechnie, Brighton; T. Sneath, Midhurst; H. H. Sinclair, Walkerton; Thos. Wilson, Elm; F. A. White, Aylmer.

FOR THE LUBRICATION OF CATHETERS.—To facilitate the exploration of the urethra and bladder in his wards in the Necker Hospital, Professor Guyon (according to the Paris correspondent of the *Lancet*) is in the habit of using the following formula: Powdered soap, 4 drams; glycerine and water, of each 2 drams; mercuric chloride, 1 grain. This ointment is said not to be irritating to the urethra, and to be endowed with much greater lubricating powers than either oil or glycerine.

THE TREATMENT OF APPENDICITIS.—At the last meeting of the Board of Managers of the University Hospital the director was authorized to set aside certain beds to be used by Professors William Pepper and J. William White for cases of appendicitis, those gentlemen being engaged in a special investigation of the symptoms, treatment, and pathology of that disease. Each case admitted to these beds will thus be studied from the outset with reference to both its medical and surgical features. It is hoped that the results may aid in clearing up the prevalent differences of opinion as to this malady.—*Medical News.*

FIRST AID.—She had attended the ambulance classes and obtained the certificate. The street accident she had earnestly prayed for took place. A man had broken his leg. She confiscated the walking-stick of a passer-by and broke it into three pieces for splints. She tore up her skirt for bandages.

When all was completed she summoned a cab, and took her patient to the hospital.

"Who bandaged this leg so creditably?" inquired the surgeon.

"I did," she blushingly replied.

"Well, it is most beautifully—most beautifully done; but you have made, I find, one little mistake. You have bandaged the wrong leg."—*Tid-Bits.*

SUPPLEMENTAL EXAMINATIONS, ONTARIO MEDICAL COUNCIL.—The following candidates have passed the final examination, held in September, and are therefore admitted as members of the College of Physicians and Surgeons of Ontario :— W. Arrell, Caledonia; W. A. Ball, Toronto; Ellen A. A. Burt, Toronto; W. L. Coulthard, Toronto; G. M. Ferris, Campbellford; J. Jardine, Toronto; J. M. Jory, Norwood; Thos. Kerr, Toronto; K. C. McIlwraith, Hamilton; E. J. O'Connor, Ottawa; W. H. Scott, Toronto; J. S. Shurrie, Trenton; H. H. Sinclair, Walkerton; A. T. Shillington, Kemptville; J. T. Somerville, Clifford, Mich., U.S.A.; J. Stenhouse, Toronto; F. W. Stockton, Richwood; Thos. Wilson, Elm; D. Thomson, Woodbridge; F. A. White, Aylmer.

DOCTORS AS COMPANIONS.—The following passage from Mr. James Payn's "Gleams of Memory," now appearing in the *Cornhill Magazine*, will be interesting to members of the medical profession : "Upon the whole, and for a 'scratch' companion, I prefer a doctor to a man of any other calling. He may not be very good as a conversationalist, but he is rarely very bad, like a cheroot. He has had a genuine experience of life, and has seen down to the depths of it; a sick man does not attempt to deceive his doctor, or put the best face on his character, as he does with a priest. Moreover, what is very unusual, your doctor knows more about you, professionally at all events, than you know about yourself. He does not tell you about it, it is true; not a word of that aneurism you carry about with you, and which will some day kill you in half a minute, but your consciousness that he may possess such knowledge makes him interesting. The best suggestions I have had made to me for plots for my novels have come to me from doctors, to whom I have also had cause to be grateful for many things."—*N. Y. Med. Record.*

SCARLET RASH AFTER ENEMATA.—The occasional occurrence of a bright scarlet rash after injections of warm water into the bowel should be borne in mind. The rash appears in about two hours after the injection, and lasts about twenty-four hours. It covers the whole of the body and limbs, and is especially marked on the face. In rare cases it is accompanied with sore throat and slight fever. The rash is almost exactly like that of scarlet fever, and may easily be diagnosed as such, especially if a sore throat is also present. It occurs more commonly in children than in adults, and is occasionally distinctly urt carial. It is due to toxæmia caused by absorption of fæcal matter liquefied by the injection of a large quantity of warm fluid into the rectum. In all cases of supposed scarlet fever it will be well to exclude the possibility of the rash being due to an aperient enema.

I have lately met with two well-marked illustrations of this toxæmic rash. Case 1 was that of my own son, aged 11. I was told that a scarlet rash had come out on him. I found that he was covered with a bright scarlet rash, but there was no sore throat, no fever, and no increase in the pulse rate. A soap and water enema had been used about two hours before the rash was noticed. I could not diagnose the case until, thinking it over, I remembered making a note on rashes after enemata. On reference I find the note was made from a very interesting paper by Dr. Burford, "On a Mild Form of Septic Toxæmia Occurring after Enemata."* The rash disappeared in about twenty-four hours, and the boy was quite well. Case 2 I met with at the Queen's Hospital. A little girl was to be operated upon, but just before the operation a scarlet rash was observed on the child, and I was asked to see her. On enquiry I found that a soap and water enema had been used that morning. There was no sore throat or fever, and the rash shortly disappeared.—C. W. SUCKLING, M.D., in *British Medical Journal.*

A MODEL SURGICAL CLINIC.—Scene, a spacious room. At a large table in the centre is seated the surgeon; his secretary is opposite, an enormous folio register open before him. A group of students is clustered about the table. Benches filled with waiting patients occupy the sides of the room. The secretary calls No. 120,736. A man aided by crutch and cane limps forward. The surgeon's examination into the biography and genealogy of the patient (four folio pages carefully written out by the secretary) being ended, the attendant removes the multiple wrappings of the right foot, exposing an inflamed great toe with ulceration upon one side of the nail. The surgeon gives it a hasty glance, and, turning, addresses the students as follows:

"Gentlemen, a few years ago a case of this kind—evidently an ingrowing nail—would have been at once submitted to local treatment, and, I admit, with fair prospects of obtaining a good result. But now that we have learned the general interdependence of the different organs of the body, we feel that a thoroughly scientific treatment demands the examination by specialists of these different organs, in order to detect any condition, likely to be etiological factors in the case. The attendant will therefore take him and a copy of his history to the different rooms in succession, and return here with their respective official reports."

[*Some Hours Later.*]

Surgeon (*loquitur*).—"Gentlemen, the patient has now returned to us, and I ask your attention while I read the reports of the various specialists."

Ophthalmological Department.—Case No. 120,736. This patient is myopic. As I recall a case where a similar visual defect was the cause of injury to the great toe in a person who "stubbed" it against the curbstone, I have ordered appropriate lenses to correct the difficulty, as a prophylactic against the recurrence of the disease. It is essential, however, that this treatment should be supplemented by wearing a loosely-fitting shoe.

Otological Department.—Case No. 120,736. I find no defect of audition. As the patient's trouble may have arisen from want of suitable support to the foot, I have thought it best to shorten the stapes leather two holes.

Lancet, December 15th, 1888.

Rhinological Department.—Case No. 120,736. A case of nasal tone ail. Wishing to bring about a radical change in the parts, I have removed with the curette all adenoid growths, together with the adherent mucous membrane, from the cavities, and packed them all with aseptic gauze—which should be removed if the patient wishes to sneeze.

Department Abdominal Surgery.—Case No. 120,736. Drs. A., B., and C., in consultation. The history showing that the patient's mother during life lost a set of false teeth, Dr. A., reasoning that "tooth and nail" are generally associated in action, is inclined to think the set may have been swallowed unconsciously and remained in the patient's stomach. Of course, he advises an operation.

Dr. B., in view of the accepted belief that "Gallia est omnis divisa in partes tres," thinks it possible that one of them may have wandered down to the great toe, and advises an exploratory incision of the gall-bladder to ascertain if either part be missing. The "Gallic boot of love," cited by Dr. O. W. Holmes, seems to indicate a tendency of the gall to the foot.

Dr. C. concurs entirely with both of these opinions, but on general grounds advises the removal of the appendix. The patient, however, avers that this has been already done, and that he has it in a bottle at home, which he will fetch if required. It is therefore deemed advisable to await further development.

Gynæcological Department.—Case No. 120,736. Palpation reveals no abnormal condition of uterus or appendages. A medical student calling our attention to the fact that the patient wears pants and has well-developed male generative organs, we doubt if this is a proper case for this department.

Department Genito-Urinary Diseases.—Case No. 120,736. Organs apparently healthy. It, however, is not impossible that the patient may have had a stone (vesical) which was passed naturally and impinged upon and injured the great toe.

Department of Neuroses, etc.—Case No. 120,736. The result of a careful examination of this case indicates a deficient innervation of his lower extremities. Two well-marked areas of impaired sensibility or partial anæsthesia are located in the gluteal regions beneath the tuberosities of the ischia. His history not mentioning this, we questioned him as to how long the condition had existed. His replies were unsatisfactory—merely to this effect, that he had "sat so long upon those d——d hard benches that his —— got numb." A rubber cushion with two holes is recommended, and the case should be kept under observation.

"There, gentlemen," continued the surgeon, as he finished reading to them the reports, "you have the result of a careful scientific inquiry into this case.

"I shall now send the patient to the chiropodist around the corner, with instructions to have the toe cleansed and a piece of sheet lead inserted under the roughened edge of the nail. I counsel you all not to lose the opportunity of witnessing the operation. Good morning, gentlemen!"—*Boston Medical and Surgical Journal.—The Quarterly Medical Journal.*

THE MEDICAL COUNCIL ELECTIONS.

The results of the recent elections are as follows :

TERRITORIAL REPRESENTATIVES.

Division No. 1—Dr. J. L. Bray, Chatham ; acclamation.
" 2—Dr. J. A. Williams, Ingersoll ; acclamation.
" 3—Dr. W. F. Roome, London ; acclamation.
" 4—Dr. W. Graham, Brussels ; acclamation.
" 5—Dr. Brock, Guelph, elected ; opposed by Dr. Vardon, Galt.
" 6—Dr. Henry, Orangeville, elected ; opposed by Dr. Smith, Orangeville.
" 7—Dr. G. M. Shaw, Hamilton, elected ; opposed by Dr. D. Heggie, Brampton.
" 8—Dr. J. P. Armour, St. Catharines, elected ; opposed by Dr. D. L. Philp, Brantford.
" 9—Dr. John Hanley, Waubaushene, elected ; opposed by Dr. W. D. C. Law, Beeton.
" 10—Dr. J. E. Barrick, Toronto ; acclamation.
" 11—Dr. H. T. Machell, Toronto ; acclamation.
" 12—Dr. J. H. Sangster, Port Perry, elected ; opposed by Dr. J. M. Cotton, Lambton Mills.
" 13—Dr. J. A. McLaughlin, Bowmanville ; acclamation.
" 14—Dr. Thornton, Consecon, elected ; opposed by Dr. Ruttan, Napanee.
" 15—Dr. W. Spankie, Kingston, elected by the casting vote of the returning officer ; opposed by Dr. W. W. Dickson, Pembroke.
" 16—Dr. R. Reddick, Winchester, elected ; opposed by Dr. R. F Preston, Newboro.
" 17—Dr. A. F. Rogers, Ottawa, elected ; opposed by Dr. D. Bergin, Cornwall.

COLLEGIATE REPRESENTATIVES.

Dr. W. Britton, Toronto, University of Toronto.
Dr. J. W. Rosebrugh, Hamilton, University of Victoria College.
Dr. V. H. Moore, Brockville, University of Queen's College.
Dr. W. T. Harris, Brantford, University of Trinity College.
Sir James Grant, Ottawa, University of Ottawa.
Dr. J. Thorburn, Toronto, Toronto School of Medicine.
Dr. F. Fowler, Kingston, Royal College of Physicians and Surgeons, Kingston.
Dr. W. B. Geikie, Toronto, Trinity Medical College.
Dr. W. H. Moorehouse, London, Western University, London.

HOMŒOPATHIC REPRESENTATIVES.

Dr. George Logan, Ottawa.
Dr. G. Henderson, Strathroy.
Dr. C. T. Campbell, London.
Dr. L. Luton, St. Thomas.
Dr. W. J. H. Emory, Toronto.

OBITUARY.

DR. WILLIAM GOODELL, the distinguished obstetrician and gynæcologist, of Philadelphia, died October 27th, in the sixty-fifth year of his age.

HENRY RICHARDSON, M.B.—Dr. Richardson, of Ancaster, received his medical education in the Toronto School of Medicine, and graduated in the University of Toronto in 1867. He at once commenced practice in Ancaster, where he remained until the time of his death, which took place suddenly on Sunday, October 28.

HUGEL C. GUELPH, M.B.—The members of this year's graduating class of the University of Toronto were much shocked when they heard that one of their number, Dr. Guelph, had died in London, England, on October 24 from meningitis. He lost his parents in early childhood, and lived thereafter with his aunt, Miss Kent, of Toronto. After securing his degree in June he took a holiday of a few weeks, after which he went to England in August. His illness was short in duration, but otherwise we have not full details at the time of writing. His career as a student was in all respects satisfactory. He left his home apparently in good health, and full of hopeful anticipations of pleasure to be derived from post-graduate work. Death suddenly seized him, and in doing so cruelly crushed very fond hopes of many loving friends.

ROBERT WILLIAM HILLARY, M.B.—Dr. Hillary, of Aurora, died at his late residence on Sunday, October 21, 1894. His health had been poor for some years, but apoplexy was the immediate cause of death. He was born in Dublin, Ireland, in 1832, and was educated at Trinity College in that city. He came to Canada in 1856, and received his license from the Provincial Medical Board in 1857. After this he practised one year at Laskey, King township, and one year at King Station, after which he removed to Aurora, where he soon acquired a large practice, which he retained until his physical powers failed. He was a bright, clever, witty, large-hearted Irishman, generally popular with all classes, and much beloved by his intimate friends and relatives. He was surgeon to the 12th Battalion for twenty-five years, a member of the Ontario Medical Council from 1872 to 1875, president of the Ontario Medical Association 1892-3, and held many prominent offices in Masonic and other orders. His son, Dr. R. M. Hillary (Trin., '90), was associated with him in practice for some years, and will continue his residence and professional work in Aurora.