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ECTOPIC GESTATION.*

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MR. President and Gentlemen,—By the term "Ectopic Gestation" we indicate those cases where fertilization of the ovum takes place, and development goes on, during its passage between the Graafian follicle and the uterus. Cases very closely allied to these are the ones where the ovum is arrested within the tube as it traverses the wall of the uterus, and those that happen in a horn or diverticulum of the uterus. Such varieties are comparatively rare.

Looking into the early history of extra uterine pregnancy, we find amongst those who have operated for its relief such names as Heister, Simon, Christopher Bain, and others, Primrose, in 1854, reporting probably the first successful case. Then there came, on this side of the water, in 1764, J. Bard, of New York, followed by Bynham, McNight, Wishart, Stevens and others.

Up to the end of 1875, Parry had collected a list of sixty-two operations for the removal of "extra uterine children," with thirty successes and thirty-two failures. It was not until comparatively recent years that we could look upon operations for the relief of extra uterine pregnancy as occupying a high place amongst the methods advocated for the relief of this distressing condition.

To the late Lawson Tait, of Birmingham, certainly belongs the honor of so analyzing the symptoms that an early diagnosis could be made, and of deliberately and successfully operating on many cases, and of placing the results before medical men in such a way that we are enabled to offer relief now to many who in former times succumbed. Tait, by what was then considered a remarkable series of successful cases, brought the operation into the front rank of life-saving measures. His results were certainly remarkable, if we consider them in contra distinction to the published cases above referred to, where out of sixty-two cass there were but thirty successes, whilst up to October, 1887, he had operated for the relief of early ruptured tubal pregnancy thirty-five times with only two deaths. Many of us still remember the stir which the publication of these records caused, and it recalls to mind the time when the diagnosis of, and operation on, cases of unruptured tubal pregnancies were unknown here. It seems but a few years since I saw the first case of the kind operated on in Toronto before rupture.

*Read before the Toronto Medical Society, 2nd November, 1905.

Now we come to a time when every one is supposed to be able to make an early diagnosis. Formerly, we were prone to mistake cases of ectopic gestation, with tubal rupture, for pelvic hæmatocele, just as now we doubtless sometimes overlook the fact that we may have pelvic hæmatocele which depends for its origin on causes other than ruptured ectopic pregnancy. On looking over one of my old case books I find a case on record which appears worthy of mention in this connection.

Feb. 4th, 1884. Mrs. T. D.—Age thirty-seven years, and healthy up to the time of writing. Nine years ago she had one child, but since that time had menstruated regularly. On February 4th, 1884, she complained of indigestion with pain and weight in the pelvis. At her last menstruation she did not notice anything unusual, except that the discharge was rather scanty. Two days later, whilst still menstruating and going about her usual light household duties in her regular way, she was suddenly seized with acute agonizing pain in the pelvic region; she turned cold and pale, and exhibited the symptoms of extreme shock with loss of blood. She was put to bed, and relieved under opiates. Subsequent bimanual examination revealed a hard mass reaching nearly to the umbilicus and filling the pouch of Douglas. Febrile symptoms supervened, and a soft spot developed. I opened from below, draining out the fluid blood and scraping out the blood clots, which were easily broken down by the finger, and washed out with antiseptic fluid, and drained.

The treatment was tedious, but perfect recovery took place; and, about three months after operation, an examination revealed the uterus still somewhat enlarged, with a small hard substance remaining in Douglas' pouch. In April of this year I saw the woman, who has passed the menopause, is well and has not had any pelvic symptoms since 1884. I have condensed these extracts from my notes, and have not much comment to make on the case. If, however, it were to happen in my practice at the present time, the hæmorrhage having ceased, I would probably adopt a somewhat similar line of treatment, but would make the opening larger, in order that the clearing out of the pelvis might be more complete and the drainage more free.

Though neither the scope of this paper nor the time allowed for its presentation would permit of any lengthy digression into the realms of anatomy, physiology, or pathology, yet there are some points on which we may well spend a few moments.

The Fallopian tubes, as you know, are from four to four-and-a-half inches long, pass sinuously outwards from the upper angles of the uterus towards the sides of the pelvis, and are enclosed in the upper free margins of the broad ligaments. They may be dealt with for convenience of description in three parts: The isthmus, that narrow, straight portion

near the uterus, the lumen of which will hardly admit a bristle; the ampulla, that larger, curved portion with a lumen large enough readily to admit an ordinary uterine sound; and the free funnel-shaped end of the tube, with fimbriæ converging towards its opening, one fimbria being attached to the ovary, acting as a guide for the ovum after it has been cast off from the Graafian follicle.

Section across a tube reveals the peritoneal layer, with a connective tissue and elastic fibre layer lying between it and the muscular layer. Then the mucous membrane lined with its ciliated columnar epithelium. No glands exist in the mucous membrane, though Bland Sutton asserted that the rugous mucous membrane had a glandular albuminous secretion, which served to cover the ovum in its passage along the tube. We remember that there is a direct communication through the vagina, uterus and tubes to the peritoneal cavity, which accounts for some of the pathological changes that may take place in this locality.

Ovarian pregnancy seems hardly possible, and yet we can understand how, with the fimbriated extremity of the tube in close proximity to the ovary, and, perhaps, even adherent in such a way as to cover completely, or partly, one or more Graafian follicles, on rupture, impregnation of the ovum *in situ* might result.

Opinions have varied as to the possibility of primary abdominal pregnancy. The view has been taken that the peritoneum would prove inimical to the life of the spermatozoa, but we cannot ignore well authenticated and indisputable facts. We have cases recorded where impregnation has taken place through artificial abnormal orifices in the uterus. Where one tube being occluded, pregnancy took place by migration of the spermatozoa through the sound to the diseased side. H. C. Coe and J. W. Williams have described one case where the left tube was the seat of two successive extra uterine pregnancies, one taking place twelve years before the other. Howard Kelly mentions a case in which, after he had removed a diseased tube on one side and a diseased ovary on the other, pregnancy occurred within a short time and the patient was delivered at term. At a later date an extra uterine pregnancy took place, and he was obliged to remove the remaining tube. We must, then, admit not only the power of migration of the spermatozoa, but the possibility of the external migration of the fertilized ovum.

Practically, however, ectopic gestation usually means primarily tubal pregnancy, which we will refer to under three heads:—

First. The tubal variety in which impregnation takes place in that portion of the tube lying between the uterus and the fimbriated extremity.

Second. The tubo-ovarian variety, where impregnation takes place in the outer end of the tube, or between it and the ovary.

Third. The tubo-uterine, or interstitial variety, where the gestation takes place in that portion of the tube lying within the uterine wall.

The danger to the life of the patient differs in degree according to the situation of the impregnated ovum. Those cases in which the ovum is arrested in the isthmus being less frequent, but more dangerous, than those in which implantation of the fecundated ovum is in the larger and softer portions of the tube or towards either extremity, where, in the case of the outer end, tubal abortion may eventuate; or if it is in the inner end, the ovum may find its way into the uterus or its cornu, and so continue its growth and terminate its career along the more natural parturient canal.

I have been struck with the amount of pain, shock, loss of blood, and traumatism that a woman under these varied conditions will endure, and, after all, make a good recovery. The remark made long years ago by Keith, that "although the condition is most alarming, the patient does not necessarily die," is well borne out by our experiences of the present day. We have all seen most alarming and hopeless looking cases recover rapidly under the skilful aseptic methods of modern surgery.

Extra uterine pregnancy may take place during any part of the child-bearing age, and, though it more often happens with those who have passed a period of sterility, it may occur in those who are regularly bearing children, and even a short time after a confinement has taken place. I myself have seen one case where it took place concurrently with a normal uterine pregnancy in a middle-aged woman who had been regularly bearing children, the uterine child being born in the usual way, the extra-uterine child being removed subsequently by abdominal section.

Though the most common cause of ectopic gestation is said to be disease of the tubes, there are many cases in which the closest scrutiny and the most searching microscopical investigations have failed to demonstrate disease, so we are often in doubt as to the cause of the condition.

After the ovum in its passage towards the uterus becomes lodged in the tube, though the tubal walls are thickened at first, they are gradually weakened by the ingrowth of the chorionic villi. The outer extremity of the tube thickens also, and its opening narrows until, by the end of the eighth week, it is entirely closed. In the cases where the ovum lodges in the outer end of the tube and where tubal abortion takes place, it must do so before the above mentioned time of closure of the outer end of the tube; and so it is that, after the eighth week, escape of the ovum in these cases can only take place by rupture.

Where the fertilized ovum is arrested and undergoes development in that portion of the tube which passes through the uterine wall, we have what is termed interstitial or tubo-uterine gestation. This differs from the more common and true tubal variety in that, instead of thinning of the sac, there is thickening of that portion which extends into and involves the wall of the uterus itself; and thus we have an explanation of the fact that, in the true tubal variety, we have rupture taking place usually between the eighth and twelfth weeks, whilst in the interstitial variety it may be delayed much longer.

The sac of the tubo-uterine gestation may rupture in two days, either it may burst into the uterus and so terminate along natural channels, or it may rupture into the peritoneal cavity when, if left alone, it is apt to prove rapidly fatal. We are reminded that in these cases the sac does not rupture into the mesometrium. (Sutton.)

When rupture takes place the placenta may remain within a cornu of the uterus, and the fœtus in the tube; or, if the placenta is not expelled at the time of rupture, it may remain in the tube whilst the fœtus is developed in the peritoneal cavity; or, both fœtus and placenta being expelled, the latter becomes attached to any contiguous part or organ, and continues to grow and develop, producing its train of untoward complications. The ovum in these cases finds its favorite resting place in the pouch of Douglas, and it is under these circumstances that we find the uterus enlarged and pushed upwards and forwards. Though uterine enlargement takes place, there is nothing within it, but there is usually a sanguinious shreddy discharge.

In a classification of 77 cases, A. Martin gives 48 as of the ampullar variety, and 8 isthmal, the remaining 21 cases were divided up between interstitial, intraligamentary, tubo-ovarian, ovarian, and undetermined. Howard Kelly states that in his experience rupture within the folds of the broad ligament, with intraligamentary subperitoneo-pelvic development, is rare. Such cases are difficult to differentiate from those of pseudo-ligamentary tumors. In the former cases, however, the ovary remains on the surface of the tumor, though it is flattened and drawn up.

The clinical history of the fertilized ovum is somewhat difficult to describe, as cases vary with position and with individual peculiarity. The early symptoms resemble those of ordinary pregnancy, but as time goes on the tumor that is developed is found on one side of the uterus, it is painful, sensitive to the touch, and has a peculiar, semi-elastic feeling that is somewhat characteristic. It can be readily felt and distinguished from the enlarged uterus beside and towards its inner side. As well as the pain of a dull character, there are sharp attacks of severe pain, and often a sanguinolent shreddy discharge. Where rupture takes

place the symptoms are urgent, and indicate severe shock with loss of blood.

The most important thing in connection with these cases is the early diagnosis. When we are called to a case with many of the symptoms of ordinary pregnancy, but also with an unusual amount of pelvic pain, often described by the patient as being of an agonizing character, and in such cases if we find on examination that a tumor exists on one side of the uterus, and that the tumor is distinctly sensitive to the touch, and if we find also irregular sanguinary discharge with shreddy portions of decidua, we may be fairly sure of the condition.

The diagnosis having been made, the question of treatment comes next in importance. We are reminded that some cases will progress to recovery unoperated, but I do not expect that in these enlightened days of aseptic surgery I need to say much on that line I need not remind you of the futility of medicines or of the risks of that once vaunted remedy, electricity. I think all will agree that operation at the earliest date at which a diagnosis can be made is the only rational way to treat such cases. All, however, are not equally satisfied as to the route by which to reach and remove the offending mass. My experience is that every case must be treated on its merits. The sudden cases, where the bleeding is severe and the symptoms urgent, are best treated by abdominal section, for by that route we know that we can quickly reach the seat of trouble and stop the blood loss. In those cases where the diagnosis is made early and where the symptoms are not urgent, and especially if the mass can be felt low down and to the outside of the uterus, the vaginal route offers many advantages, especially if the pelvis is roomy. Whichever route is chosen, the operation should be as soon after diagnosis as possible, and should be conducted with all the precautions of modern surgery.

A CANADIAN ACADEMY OF MEDICINE.

By JOHN HUNTER, M.D., Toronto.

EFFORTS have been made, in one way or another, at intervals during the past years, to establish an Academy of Medicine, or other medium, by means of which Canadian medicine in its literature and practice could have something of a national character. Like every other worthy movement, it has found obstacles in its way, *e.g.*: The great extent of our country makes it practically impossible fo Canadian physicians to become sufficiently well acquainted with each other, to coöperate very heartily in carrying out any great scheme. Again, the commercial spirit of our age is very contagious. The "craze" at least to

appear successful, from the pecuniary standpoint, as represented in an expensive residence, automobile, or groom with high-stepping horse, not to mention the ambitious aspirations that beguile so many into the maelstrom of politics—has fatally impaired in altogether too many promising young medical men that noblest of all ambitions, high professional attainments. The apathy displayed by the profession in general, towards this movement, has become so profoundly chronic that not a few of its earlier advocates have about lost all hope in its accomplishment. These disconsolate souls should gather inspiration from the spring poet, who says:

"The time to succeed is when others,
Discouraged, show symptoms of tire.
The battle is fought on the home-stretch,
And victory won 'twixt the flag and the wire."

To spare the time of the reader and to conserve space in the crowded pages of this journal, I shall endeavor to discuss, as briefly as possible, the question of establishing a Canadian Academy of Medicine from two standpoints only: (I.) Its national, and (II.) its scientific importance.

Its National Importance.

The sentiment I wish especially to emphasise under this head is that patriotic one, which is expressed, if not classically, yet very effectively, by the term "Made in Canada." The history of our country furnishes a splendid object lesson in patriotism—one that should certainly stimulate every physician interested in this movement. From the Conquest on down into the earlier decades of the last century, the majority of our ancestors believed that they could show their devotion to the mother country by implanting her laws and by closely imitating her customs. The result was that many Imperial officers, sent out here, were allowed to surround themselves with a coterie of favorites and rule about as despotically as a Russian autocrat. However, the nineteenth century was yet young when the bracing atmosphere of Canada and the hardships of pioneer life began to evolve a virile type of Canadian manhood. This sturdy class saw with clear, wise, brave, prophetic vision that if ever Canada was to deserve the respect of the British people, and to take her proper place in the estimation of other nations, she could only accomplish it by initiating and cultivating a patriotic spirit, and by establishing a government directly responsible to the people. The story is soon told. It took a rebellion to put down the autocracy, and on its ashes arose responsible government. In due time followed the union of the separate Provinces into a vast Dominion, extending from ocean to ocean and embracing the larger portion of the North American continent. The

introduction of a tariff to suit our own commercial needs, the despatch of our troops to South Africa on our authority, our right to be represented in international questions affecting our own country, are some of the fruits harvested from Canadian patriotism.

In our complex civilisation, there are many elements that contribute to the growth and prosperity of our country, but what factors have done so much for us, during the last seventy or eighty years, as the development of a strong national spirit, and of confidence in ourselves, to work out our own destiny. These have given us contentment and prosperity at home, and deepened our loyalty to our Empire. Our national aspirations have so challenged the attention of the old world that whereas, a century ago, for one emigrant that left its shores for Canada, hundreds if not thousands left for the United States. To-day immigration is pretty evenly divided between our neighbors and ourselves. No longer are the United States looked upon as the only home of freedom. Even our astute cousins have learned that Canadians have been able to evolve just as fine a brand of liberty as their own, and that we have a somewhat freer scope for its growth, hence the great emigration from the Western States into our new Provinces.

In the above paragraphs we have reviewed the influences that have contributed most largely to our political and commercial prosperity. We come now to review our medical history to see what influences have affected its progress. Quite a large percentage of our pioneer physicians came out here in association with political or military officials. These brought with them their British literature and methods of practice. They were, as a rule, not only skilful practitioners, but also cultured and courtly gentlemen. Their impress has been felt in Canadian medicine ever since. Each year a goodly number of our students cross the ocean to get British degrees or titles, and many of our medical men go over in order to visit the hospitals and renew acquaintances. Now most of us are thankful for the example of British physicians, and for the benign influences of its literature and methods of practice, yet the fact remains absolutely true, that it is not in the best interests of either the individual, profession or nation to be simply a slavish imitator of any model, however excellent it may be. The moment we Canadians become satisfied with the British or any other system, we draw the dead line of our progress. We become in the exact position of the traveler who has reached the summit of the mountain. To us, in our self-satisfied state, as to him, all roads lead downwards. Patriotism and self-reliance are just as essential factors in medical as in national progress. I yield to no one in my admiration for the courtly, cultured British physician and surgeon, or for what British medicine has accomplished, yet I know of no reason why we should not, at least, attempt to grow as high a type of man, and

to cultivate a medical literature and practice as essentially Canadian as those of Britain are British. The first step towards nationalising Canadian medicine is the establishment of an Academy of Medicine.

Coming now to the medical history of our own times, we find that considerable progress has been made. Our Medical Council, though not as virile a body as could be desired, yet it has helped to elevate the standard of medical education, and to improve the regulations governing practice. The union of our medical schools in Toronto, so as to form a strong department in our Provincial University, is an upward step, and the effort to secure Dominion registration has certainly done something to inspire our patriotism as medical men. Our history shows that with the exception of the Dominion Registration Bill our medical legislation has been almost entirely of a Provincial character. Our medical journals, though some of them have very capable correspondents scattered over the Dominion, yet none of them has the status of a national journal. We have reached a crisis now similar to the one our business men had to face years ago. The latter said, "We will make Canadian products honored at home and abroad. We will make 'Made in Canada' our talisman to conjure by. Have we the courage to follow their example?

An Academy of Medicine will not, and ought not to, be a mushroom growth. Its growth will be the product of the laborious toil of generation after generation of tireless workers. Those of us whose visage is marred by wrinkles, sterile scalp, or snowy locks, the stigmata of age, cannot hope to see its full fruition, but what nobler epitaph could we wish to have than this: "With clear, wise, brave foresight they peered far into the future and saw therein a magnificent temple devoted to Canadian medicine, and on the strength of this vision they did what they could to lay its foundation."

Its Scientific Importance.

As long as the ætiology of many diseases remains obscure,—the preventive measures imperfect,—and the means of alleviating suffering so inadequate, no one can dispute the imperative need for research work. Along many lines work has already been accomplished that is of inestimable value to mankind. The spirit that is begotten by research work is a facsimile of that which inspired our pioneers. It questions the tyranny of traditions and of authority, and seeks to test all things. One of the greatest detriments so far to Canadian research work is the fact that most of the original work, like the workers themselves, has gone to swell British and American literature. This untoward result has come about largely because there has been no medium by or through which it could find national publicity. It is certainly high time for a change.

Again, research work is somewhat unique in character. In other kinds of work the laborer expects a pecuniary reward, but in this field the reward is not material; it comes in work unselfishly done for the sake of science. Harvey is said to have lost about half his practice on account of the opposition with which his great discovery was met. He was fiercely denounced for teaching scientific facts instead of the dictum of the fathers "The spirit of commercialism should be as foreign to the man of science as it is to the physician, for both should be idealists in the best sense of the word. The fruits of their labors may be gathered by others, but none can rob them of the joy of having brought them forth. The 'practical man' may not appreciate such ideals; he may deride those who cherish them; but he is ever ready to use the discoveries of science for his own ends. The reward of the true pioneer does not lie in what is said by 'the fool multitude who choose by show,' he seeks only 'the wages of going,' he finds his recompence in delving into the wonderland of nature with all its hidden beauties and thereby forgetting the smallness that enters into all men's lives."

We know, from the character of research work, the necessity of having some means of securing publicity. Many Canadians have contributed excellent original papers, but as we have no recognised national organisation or journal, or no published transactions of our medical societies, these are hidden away in either the memories of those who heard the papers, or in local journals. Under these circumstances it practically impossible for any article, however meritorious, to gain national publicity. The result of this has been very lamentable, in so far as building up a Canadian literature has been concerned. Instead of having an institution that would encourage original workers, they have been left to struggle along without recognition, or allowed only too often to drift away to other countries. We have lost men who could, if they had been kept here, have made Canadian medical literature and practice challenge the attention of the whole world. Whether the loss of men like Osler, Cullen, Barker, *et al.*, is irreparable or not, of this we are certain, that had their works gone out to the world through a Canadian Academy of Medicine they would have given to our medical literature and practice a national status.

Sir Wilfrid Laurier has said, "What the nineteenth century was to the United States, the twentieth century will be to Canada." We hope this prophecy may be fulfilled in our medical as in our national life. The nineteenth century saw the whole field of medical science exploited by American writers. Their text-books are listed in all our colleges. If Canadians could only realise the fact that Canada is in a much better position to-day than the United States were much less than even a century ago, it would do much to fire national aspirations. Medical men

should be pioneer workers in nation-building, not mere parasites satisfied to live on the labor of others. Why should our library shelves be filled with series of books, unbroken by the name of a single Canadian author? We have in our diversified climatic conditions, in the varied physical conformations of our country, and in its mixed races, hygienic and other problems, the solution of which should be inspiration enough for any student in research work. We are not all endowed with a genius for this kind of work, but we should all be willing to lend whatever aid we can in fostering it. Another reason that should appeal very strongly to the members of the medical profession as a whole, is the fact that as yet we have not, in our ranks at least, a wealthy class, who have both leisure and means to devote to original work. To earn "our bread and butter" is a very imperious claim on most of us. We should, therefore, be willing to combine our efforts in seeking out and in encouraging those amongst our students and recent graduates who show a zeal and aptitude for research work. What the "Salon" in London or Paris is to the young artists, a Canadian Academy of Medicine would be to our young scientists. It would give their work, when meritorious, not only national, but world-wide recognition. In conclusion, the value of some of these contributions to the lives of our people, would soon be appreciated by the public, and, as in the case of the proposed new hospital, our wealthy men could be counted upon for substantial aid in developing Canadian medical science.

"The day is short and the work is great. It is not incumbent upon thee to complete the work, but thou must not therefore cease from it."

THE TUBERCULOSIS QUESTION.*

By PROF. DR. MORITZ BENEDIKT, of Vienna.

I. Introduction.

THE Vienna school still holds since Skoda the reputation of strict logical mode of thought and the genius of the Austrian people possesses the qualification on the one side of "bon sens," and on the other side of direct impressionability. These qualities protect us from being one-sided and dogmatic. The doctrine of Tuberculosis has yet many deep loop-holes, and rapid deductions from the knowledge thus far attained may become positively and negatively dangerous. Though not as a specialist, but as a student, and as a thinker strictly methodical from the school of the creator of the "pure critique of reason" in medicine, Skoda, as pupil of the incomparably unprejudiced diagnostician and

* Read before the American Congress of Tuberculosis in joint session with Medico-Legal Society.

therapeutician Oppolzer, have I paid attention to the various questions, and for that reason I take the liberty of taking part in the general discussion, and I believe that I can advance many ideas which will not be broached by others.

II. The Infectiousness.

The most important question is probably that of the infectious capacity of consumption.

It is well to consult in all questions the greatest teacher—history—and there we find that a great master in the so-called obscure, but often sunlit antiquity, that Galen had already affirmed that question and recognized the most important condition of infection. He teaches: "With phthisic patients there are putrid exhalations in the room which they inhabit and a fœtid smell. Experience shows that persons sleeping in the same bed with phthisic patients or a longer period of time dwell together, eat and drink with them, or use their clothing or linen without these having been purified of their noxious quality, are attacked also by phthisis." We will recur later to the full importance of this doctrine for the knowledge of which I am indebted to Dr. Max Neuburger.

A second important lesson from history I draw from the fact that the danger of infection from tuberculosis cannot be very great, as it disappeared temporarily from the consciousness of the scientific world. If such authority in clinics like Skoda and Oppolzer could overlook such causes of the origin of tuberculosis, then infection could only take place under specially favoring conditions. Doubtless the danger of infection is exaggerated to-day in its sociological dangerous manner. There exist peculiar conditions, not known to us yet in their exact existence, under which infection takes place.

A further lesson from history, which on this occasion looms up drastically, is that every advance in science brings with it also a retrocession. With the great acquisitions of pathological anatomy, which conceived the tubercles as "new formations," disappeared the old doctrine of the origin by infection. Of this general principle, which is constantly evidenced, we must take the admonition to ask anew to-day, whether there is not in the present day progress a partial misconception of the truth?

III. The Homes of the Infected.

If we inquire into the conditions and opportunities of the danger of infection we meet first the question of habitation. The abode of the populace, the home of misery, is the most important breeding place of consumption. In these dwellings thorough ventilation, sunshine and cleanliness are out of consideration. The poison of disease broods in the filth which fills the air and which sticks and accumulates on the walls,

on the floor, on the furniture, the clothes, the linen and the human bodies.

The linen, and especially the bed linen, and the clothes of diseased and deceased are at the same time used by the persons still in health.

This dwelling together of healthy and sick persons in dilapidated rooms under the mentioned health-injuring conditions is the most dangerous, as in the most cases it affects persons who are poorly fed and are also exposed to the inclemency of the weather.

Stress must be laid upon the fact, that dwellings will not become dangerous as bearers of the germs of infections by short and passing use of a patient, but by long and frequent use, if the necessary sanitary precautions are not taken. It is necessary to point this out to guard against an unnecessary and disturbing panic among the people.

It is further certain that the living together with persons suffering with phthisis is apt to become dangerous and especially in connubial union; the healthy party may be attacked with hasty consumption, especially if the patient is already in a hectic condition, feverish and subject to night sweats. But we often see this danger pass by, if there is no predisposition and the other hygienic conditions are favorable.

Next to the dwellings of the populace, special sanitariums under certain conditions form the greatest danger for the aggravation and dissemination of consumption. Patients who enjoy at home many hygienic advantages, namely, a favorable residence and a healthy nourishment adapted to their condition and good nursing, are transported to sanitariums and they return in a miserable condition, or not at all. Experience teaches us that the older the sanitorium is the more dangerous it is for the patient, for the attendants, and for the population in that place. Since years I am pained by this recognition, for which I made in vain propaganda in friendly circles and when I announced this opinion for the first time in my letter to Dr. Albutt, it was not without some apprehension. Considering the many interests affected, I had to fear the fate of Ibsen's "Volks' Fiend" concerning the people and in addition to have made such an unenviable reputation to no purpose. I am happy, however, to state that no opposition arose.

Wherein exists the danger of sanatoriums? Above all, again in the dwellings. Through decades, and in every season, consumptives change off with consumptives in the same chambers; the walls, furniture, linen, floors, carpets, curtains are suffused with poisonous germs, and this material attains in time through accumulation that quality which conveys the full power of deathly work.

My experience in reality is that the dangerous point is not bound up with the place, but with certain dwellings and quarters.

A further danger consists in the intermixture of linen for body and beds of the sick and those of healthy persons, and that the disinfecting of this linen by strong heat is not sufficiently provided for. In this linen, however, are found the conditions which give the germs their full infectious quality.

Added to it is the fact that all the places in which the tuberculous patients aggregate, influenza becomes easily epidemic and grows to be a Damocles' sword for the sick.

In the same rooms, in the same beds, with the infected linen live the natives out of the season and catch the disease.

In a country sanatorium to which I have given considerable observing attention, the female native population is to a remarkable extent, more exposed to the danger of infection than the male population, and especially the robust young peasant girls. This evidently arises from the fact that the tuberculous male guests, who are, as is well known, very libidinous, are listened to more favorably by the country lasses, than is good for their lungs.

The sanitation of the health resorts is, therefore, a pressing requisite. We will refer to this further on.

The next, as places of infection, are the hospitals. It is well known that in older hospitals there are always rooms which are not only dangerous to the patients, but also to the nurses and the physicians. It must be remarked that this not only refers to tuberculosis, but also to dysentery, Egyptian disease, typhus, etc. And here we again meet with the remarkable fact that such bad conditions continue for years, without that the authorities deduce the necessary conclusions and that the facts are guarded for a long time as an official secret.

Such poison-abodes are but too often the barracks, and next to them the prisons. Of course, it is not only the poisoning of the living compartments and assembly rooms which are detrimental, but also very often a guilty lack of proper nourishment. I know a prison in which the mortality decreased in one year by 12 per cent. as soon as a conscientious director assumed the provision regulation. Especially military prisons, and especially those located in casemates, often form expresses to the other world, and in order not to make statistics too horrifying, candidates of death are frequently pardoned and sent to hospitals or to their homes. According to various localities condemnation to imprisonment for 1 to 3 years often means condemnation to death, and the axe is swung by tuberculosis. This is the more terrible as condemnations are not always pronounced for crimes, but for violations of discipline, and because many military criminal laws and especially the criminal codes are imperfect, and errors of justice are easily made.

That even in lunatic asylums—even in the luxuriously appointed English institutions—tuberculosis may make its appearance as an epidemic in the place, has been observed with horror by the English colleagues. In this it is not the poisoning of the institution which alone plays the role there.

How dangerous it is to expose such evils is best shown by an incident in history, which should be preserved, of the renowned Austrian gynæcologist Semmelweis. The lying-in-hospital, as it existed then, had as chief an ignorant, weak-minded and incredibly careless professor. There prevailed the septic puerperal fever, and the carelessness had to be charged with 20,000 victims. At times only the mothers who had given birth in the streets escaped with their lives. Semmelweis roused an alarm but without any momentary success and his honesty and faithfulness to duty undermined his life's happiness. History acclaims him as the pioneer of asepsis; but when a call to the Vienna University was spoken of, he received of all the members of the faculty but one vote—albeit that of Skoda. That so noble a circle of men which composed the faculty, would not pardon the opposition of a young scholar to an Ordinarius is worthy—though not for the object of intimidating—to remain forever memorable. Such sins are committed by even the noblest oligarchy from considerations of esprit-de-corps.

Often the Congresses are the proper places to bring such evils to the light of publicity, and to morally compel the respective authorities to afford relief.

IV. The Poison-Germ.

Above all, the question of the origin of the poison-germ and its vehicle must be elucidated. Outside of the products of cattle (milk, cheese, perhaps meat), it is man from whom the poison of consumption originates. The sputum and the exhalations from the lungs are looked upon as the chief vehicles. Certainly not less important the sweat, neglected wrongly by the moderns. Sweat is the attempt of nature to discharge the poisonous matter, and that its admixture with the air and food means the poisoning of others, is doubtlessly ascertained from the facts in our clinics. From these sources rises also the dangerous quality of the insufficiently disinfected linen of person and bed and clothing of the patient.

It would be in order again to turn to the sweat that carefulness of research and investigation applied in former centuries.

Clinical facts—much better than those from the laboratories—tell us that all these poisonous vehicles from the human body must be aggregated, and, as Galen maintained, become only active after a long time. It seems that there must first develop a certain fermentation or putrefaction until the germ becomes active.

Also the undoubted circumstance that the exhalations in the later stages of consumption are more dangerous, favor the evidence that certain changes, not yet known, take place. The mass of microbes alone is not determinative.

It appears to me that the attempts of Koch to infect cattle with human tuberculosis failed because he used virus not thoroughly fermented, or not fully putrefied. If he had brought a cow into a sick chamber in one of the sanatoriums known for its infectious quality, left her there for some time, and permitted her to lick the soiled beds, linen and the body of the deceased, and had her given the chance to sleep together with the patient—naturally *moralitatis causa* with a female patient—he might have had a better success.

Whether the vehicles or the microbes, or both, undergo therein a change, is not as yet known, nor has the question as yet been seriously entertained.

V. The Fundamental Theory and the Etiology of Consumption.

We will now elucidate the question of the origin of consumption from the standpoint of logic and experience. Then, if we assume that consumption is always an infectious disease the doctrine of origin is by no means exhausted by the doctrine of the qualities and the mode of acting of infectious germs.

Toxicology teaches us that there are poison-receptive and poison-immune tissues and organisms.

At every such investigation we must establish a basis of biological thought. Every biological expression (manifestation "M")—and every disease is one—is first dependent upon the inherited or organic quality of the being or organ in question, which we designate as its nature ("N"). Next determinative is the development ("D"). The factors of this development are of different value. Part of them penetrate so deeply into the conditions of existence that it becomes a second nature ("I"), while others do not penetrate as deep and which we must designate in a narrower sense as moments of development ("E"). Besides there are causes of chance ("O").

The sum of equations N N and E present the predisposition in the wider sense, the part (N) thereof in a narrower sense. In mathematical form this biological fundamental form must be thus written:

$$M = f(I\ N\ I\ N = E = O).$$

We can say positively, consumption originates only where the nature of the organism or of an organ makes it possible. It is, therefore, all the original nature (disposition) determinative, and it is certain that there is an organic consumption, in the sense of an inherited disposition, exclusive of that acquired during the life of the fœtus or in childhood.

The latter form which influences the entire growth of the organism from its first disposition, ranks in importance with inheritance and are found, therefore, in class "N" that is in the second nature.

To-day, inherited, organic consumption is thrust to the background, not by nature, but by the learned profession.

These innerited and even congenital cases are, namely, for the presentation at this day of the evil very disturbing and there have been explanations advanced in order not to touch the deductions. He, however, who has studied such cases will not subordinate the prominent facts to any dogmatic theory.

I have myself two demonstrative cases: In a family, blooming, robust young men and girls were attacked at a certain age—at the beginning of the second decade of their lives—in perfect health, by hasty, fatal consumption. The individual cases happened at an interval of several years, consequently exchanging mutual infection and the hygienic condition was favorable. There prevailed then the same relations as at the outbreak of an inherited amroia paralytica, tabes or cancer, which crop out at certain ages and the breaking out of which is predestined from the moment of procreation.

In another numerous family appeared among some members acute consumption at the period of the first puberty, without pronounced cause, most of which proved fatal, while other members of the family kept blooming and well, though they lived under the same conditions.

Opposite to this definite lifetime of the appearance of consumption the question is opportune, whether individuals so sorely affected from their childhood could be protected before the outbreak of the disease by sojourning in places without the cells of Koch. If this is not the case, then the independence from the effects of Koch's cells would be established.

The appearance of these cells of Koch in these predestined cases could be conceived as an escapable symptom like the appearance of fungi in cellars where neither fresh air nor sunshine appears.

We have already mentioned the fœtal and juvenile cases which belong to class "N"—A further transformation of this man's nature may be effected by economic, social and climatic conditions, above all by the mode of occupation, etc., that the sum of these factors of development as "second nature" may so powerfully prepare the disease as the original disposition.

In most occupations which bring on consumption the irritation of the lungs by intermixture of chemically-mechanic materials with the oxygen taken in, induces inflammatory conditions, on the basis of which a development of the disease takes place, most probably through the influence of the Koch cells. According to the fatality of these phenomena,

these influences may be counted with either factor N or E. In other occupations, for instance tailoring, consumption originates because during the labor a part of the lungs—especially the apices—are not ventilated, and therefore the tissues lose their normal activity and power of resistance, so that the Koch cells, with the toxins drawn from the tissues bring on the disease.

All enfeebling diseases may become developing factors of consumption.

Nervous affections may also be considered favoring the disease, such as the degeneration of the respiratory nerves with paralysis, tabes and myelitis. Also the great loss of flesh in hysterical inappetence and vomiting cause consumption, like the consumption through hunger and destitution. Also in cases which I have designated as "asthma diurnum," at which a persistent incomplete respiration takes place, would cause in an equal way consumption.

We have considered until now the "nature," the "second nature," and other faculties of development of our preceding formula. We must now inquire into the proper accidental causes (O) of the disease.

Here we must again inquire whether such is always necessary. The inherited causes do not compel us to such an assumption. We can perceive that the conditions of life are such, that the healthy process of living conditions and chemical changes at a certain period of life, as well as in inherited paralysis, or tabes, or carcinoma assume a character of sickness. Even if in such a case a definite symptom, namely, the appearance of the Koch cell were under all cases and from the first moment determined, it does not say that logic would demand that these cells present an essential condition of sickness. It might be possible that there are many unavoidable evidences.

The conception of tuberculosis for these cases as a disease of degeneration was the one generally assumed before 1882, and is not, as appears to me, entirely free of objection at this day, though we have entirely relinquished this conception.

I do not wish to make of this an assertion, not even express a personal conviction, only the right to state my doubt. Doubt is the mother of criticism and the guardian of false deductions and errors.

It is beyond a doubt, however, that in inherited and acquired predisposition, the tuberculous virus usually generates the disease.

VI. Bacteriology and Consumption.

Before I pass to the regulations and measures for the cure of consumption, I beg leave to make a trifling excursion into the field of the doctrine of microbes. I have avoided until now the expressions bacillus, bacteria, bacteriology and bacteriologists. The one reason is purely

philological. I hesitate to use words which are a sign of the philological capacity of the academic world. The designation of an object which looms up in observation and recognition, should express the form as well as the qualities. We understand to-day by bacteriæ and bacilli in medicine all these minute beings which stand in close connection with contagion. Only a portion of these beings have the form of a staff. The form is, therefore, not designated in a number of cases.

Of the qualification the designation expresses nothing. We know now that these minute beings are living beings, with the power of assimilation and propagation, and we might therefore, for the present, at least, designate them as cells. They are compared with the average cell form, very minute; we might, therefore, call them "dwarf cells," and as they stand in close connection with the toxination and contagion of living tissues, we can designate them as "toxin-contagion, infectious dwarf cells," and in the text the designation might be abbreviated.

These dwarfy beings have not perhaps the importance of cells, but of cists or only of protoplasmic flakes, analogous to the particles, the movements of which in the so-called karyokinese are visible in the cell of the ovum, which after all have the significance of independent living substance, as they avoid the foundations of the individual tissue-elements, with their qualification of assimilation and propagation. The necessary change of the expression: cell would become then a historical moment of progress in knowledge.

The more indeterminate expression partially could be used; but it is not fit when applied to living substances.

There is, however, another reason why we have preferably used thus far the indeterminate expression epidemic toxin or virus.

Whether pure cultures of the Koch toxin cells could generate consumption is questionable as far as the human being comes in question. Outside of the food from cattle, infection is carried from man to man, and if in all cases of infection the toxin cells very probably play a role, it is highly probable that there is toxin present in the vehicles, which are perhaps much more important than the cells themselves. For that it is affirmative that older and advanced cases are more dangerous by their isolation than cases of shorter duration and less acute, and that the proportionality between the number of cells and the aggravation of the case is disputed by many.

It further appears to me, as I have already expressed myself twenty years ago, that bacteriology does not as yet hang upon the right hook. Inducement offered: first of the inherited cases of consumption, which make their appearance at a certain period of life, in which, at least during the process, toxin cells could be shown, but their absence in the first beginning was not beyond doubt.

But the appearance of plague cells in sporadic cases of tetanus made me sceptical. I was more confirmed by the latest fact in this class, namely the evidence in such cells, capable of assimilation and propagation at the time of epileptic attacks, by Dr. Bra in Paris. I doubt not for one moment that soon all analogous proof will come forth in case of raving mania, or perhaps even in outbreaks of rage a la Lear. We will then comprehend the rare cases of outbreak of Lyssa through the bite of maniacs and the primary appearance of Lyssa in dogs through violent sexual excitement.

We can also deduce from analogies that in sporadic cases of yellow atrophy of the liver through violent psychic excitement such cells will also be found as in epidemic "yellow fever," and so on in many cases of acutest irritation of tissues in degenerations under irritations.

These facts give cause to ponder. I have drawn a deduction therefrom, which, if it should be verified, would cause a revolution in the theory of epidemics. I refrain from expressing it, because at this time, even if verified, it would call forth a clamor against me.

At any rate should we be reserved in drawing conclusions, especially when the question arises to prevent and cure consumption?

I may be permitted yet to make a remark of logical method. It appears to me as if the modern doctrine of toxin and epidemics commits the mistake to transfer the deduction drawn from experiments of a certain toxin upon all others without critical examination.

VII. The Prevention of Consumption.

We can now pass to the discussion of the measures of prevention of consumption.

I pass by those of prevention of transference from tuberculous cows.

To the question whether the test of tuberculine enables us to recognize in proper time the tuberculous condition of cattle, I cannot answer, as I am evidently not competent to do so, as little I feel competent to say whether that test in man is of value or should be made.

The next measure of prevention relates to the neutralization of the toxic excretions and exhalation matter of the patients, namely, of the sputa, the sweat and the toxine material in the air of exhalation.

Upon the latter adequate air currents and sunshine have probably the best effect. They are altogether the deathly enemies of the tuberculous virus.

Further, minutest cleanliness of the body of the diseased and of those with him still in health.

We guard thereby not only against the infection of the healthy, but prevent the incessant renewal of auto-infection of the sick persons, who should be as much as possible in fresh, pure air.

We now get to the accumulation, the removal and the destruction of the sputa. We will return to this in the discussion of the reform of health resorts and sanatoriums.

The sweats should be removed by careful ablutions with a wet cloth —perhaps, as customary, with a solution of vinegar acids. These rags must be kept in a closed vessel and exposed to hot air.

To the measures of prevention also belongs the removal of the sick from their surroundings, especially in unfavorable conditions of dwelling and other social conditions.

This compulsory removal, must as in cases of insane and persons suffering from contagious diseases, be regulated by legal provisions. In order that it can be carried out, provisions should be made for the families of the patient upon whose labor they are dependent. When society replaces the value of animals that have to be killed, it is obliged to do so in respect to human families.

The preventive measures referred to also apply for the sanitation of the former mentioned birth places of consumption. But we are affrighted at the task of this sanitative measure. We stand here face to face, for which the science of the physicians is determinative, but whose power has little weight.

What great social revulsion and social activity is called for alone by the sanitation of the dwellings of the poor, which harbor yet destitution and misery? Here the friend of humanity must above all raise the call of general disarmament in order to receive the help of the colossal sums of military power for the regeneration of broad masses of the population. But how powerless are we physicians to fight. The chauvinism and imperialism of the nations who hinder it, that the less expensive philanthropic benevolence push away the more expensive hatred and the still more expensive lust for power.

Our activity becomes here a discouraging patch-work.

Our first duty concerns the sanitation of the health resorts. For this purpose it is at once requisite:

1. That the reception of consumptives in a private house be subject to a concession from the authorities, which must be preceded by a careful investigation of rooms and arrangements, and to the permission must be attached a definite hygienic regulation,—of which later on.

2. Every health resort for tuberculous patients must contain a hot water laundry, where linen, carpets, curtains, etc., can be exposed to the germ killing heat.

Altogether, care must be taken that the linen of the population, not only of the health resorts, be exposed to hot air, and the larger communities must establish hot water laundries in which—under the direction of the administrators of the poor, and the physicians of the poor—

the linen of the poorest be purified. The ironing is then left to the owners. With that a reorganization of the laundry business must go hand in hand, as the present form harbors numberless dangers.

3. The appointments of the rooms must be so that the infectious germs have as little chance as possible to remain attached. The walls, for instance, should have oil or water glass paint, the floor covered with linoleum. Bedsteads and furniture should be of iron, that in case of need they might be exposed to steam heat.

4. Every fresh use of a room should be preceded by a thorough disinfection, and above all an airing of several days.

5. Of course all things needed for helping cure must be found in the health resorts.

6. Every health resort must stand under strict supervision of the State. It is directed by a special medical officer. Of course private practice on the part of the officiating physician is out of the question to insure his independence of all local influences.

The resident authority, commitment doctor and health resort physicians are not adapted because they come too easily in conflict with the interests of the people, and apt to be compelled to connivance.

7. The practising physicians are obliged in specially dangerous cases at the departure of the patient or after his death, to make a "confidential" report in order to rouse the attention of the official to supervise the proper disinfection. It is also the duty of the physician attending at the house or at the rooms to make a report whenever the symptoms of a prevailing infection appear.

Neglect of the duty to report should be subject to definite penalty.

8. Altogether would it be well to reform the whole system of health resorts, so that a system of smaller and smallest sanitariums be introduced, which to the largest extent should be left to private enterprise under State supervision.

To other necessary measures of prevention we will recur in the discussion of sanatoriums. I will call here attention to some mistakes in the use of health resorts.

Many patients visit them with insufficient means.

Then they herd together patients in dwellings that are pestilential, are insufficiently nursed, and return home in worse condition than they come in, or not at all.

This evil formally clamors for sanatoriums, especially in health resorts.

A further mistake is to send acutely sick persons in fever to distant health resorts, especially in winter, to die there or perhaps on the way. Though we may not tell the patient, "Stay at home and die in comfort," still we may appease him and hold out hope to him that he may improve.

It is against all sense to send patients, in winter or in the fall, to Southern health resorts, to stay there for a short time, if they have to return during the inclement season to their unfavorable condition.

Attention may be called here further to two incorrect actions. One is especially committed in sanatoriums supported by philanthropists. Patients severely sick are not received in order to have a more favorable statistic. Sanatoriums, however, are established for the best possible relief they can give, and not for the favorable statistic.

Very nearly criminal, at any rate censurable, is the abuse practised in health resorts, in sending away patients in a dying condition, who then die in a coupe or in a way station. The excuse that death and funerals disquiet and harrow the other patients does not hold good. We know nearly all sanatoriums where many operations take place and many die. It can be as easily arranged in health resorts as in sanatoriums, that the survivors are kept in ignorance. "They have gone away on a journey," might as readily be said of travelers to the other world.

What must be done in order to make infected hospitals, also barracks and prisons in character harmless need not be elucidated.

Here a weighty moral question comes in for consideration. Those interested must have the courage of conviction and their courage must not bend before official force.

Lying, white-washing and denials must be banished from public life.

The dangers of infection in large and small factories are at least theoretically decreased by sanitary industry and factory laws; only care must be taken that the laws are carried out. The same applies to schools and to school hygiene.

VIII. Treatment of Consumption.

We now come to the treatment of consumption. Here the already mentioned measures, which prevent the constantly renewing auto-infection plays the first role. All treatment which improves nourishment—and to this belongs the furnishing the starving with food; further all those which better the condition of the general strength and the resistive power of the tissues, are important for the treatment of consumption. Hardening by timely applied hydrotherapy and strengthening of muscles by proper athletics, must never be lost out of sight. Good air with much tarrying in the open atmosphere, and a good deal of sunshine, will remove the germs in the body.

For all patients who cannot find in private treatment all they need, the treatment in a sanatorium is fundamental for cure.

From all said heretofore, the first rule ascertained is that we should not build as sanatoriums either palaces or barracks. These will become in time breeding places for the tubercle poison. It cannot be denied that

in every new institution effective hygienic arrangements can be made. It is certain that with extreme, so-to-say boundlessly liberal precaution, a home for tuberculosis patients can be kept intact for a long period. A private sanatorium, for instance for operations, which has a splendid clientage and an accomplished director, who is conscious that the institution can only prosper as long as it is not infected, or is kept free of infection, with a large staff of physicians who know what they are aiming at. In large specially public hospitals, this is not easily accomplished. With tuberculosis, airing and sunshine plays a great role and the larger the house is the more difficult will it be to keep the air pure and have sufficient sunshine.

It follows from this that sanatoriums for those suffering from tuberculosis should consist of small pavilions, and that the erection of such pavilions should be aimed at in special health resorts. The opportunity should be afforded for all, rich or poor, to be accommodated in such pavilion sanatoriums. Very wealthy patients can procure for themselves all neded conditions and accommodations. Sanatoriums should not be monumental buildings, so that after a number of years they can be taken down without great loss and removed, if they prove to be infected. Special emphasis in the erection of hospitals must be laid upon the separation of the rooms where the patients spend the days from the bed chambers, and that for the patients in an advanced stage of the disease. Two rooms should always be available, which by day and night can be interchangeable and thoroughly aired, cleansed and admissible to sunshine.

The arrangement seems to me ideal, that the sleeping rooms situated to the east and the day rooms to the west, so as to have the sun at all times. Between a corridor with a ventilateable glass roof, that would absorb the mid-day sun. The demand for south rooms seems to have originated from the misapprehension of the northern people, who interchange south and west.

Where a public colony is founded in the proper location, the treatment locality among which also the technico-therapeutical such as baths, inhalations, etc., should be at a distance from the residences. Where an aggregation of patients is had, the meadows, gardens and promenades should not be neglected, as there can be no doubt that in the soiling of these places an extremely poisonous virus can develop.

Important in this respect is an American observation on the meadow of a military invalid home, which was largely occupied by consumptives, the patients roamed about for years and naturally expectorated a great deal. When permission was given for a herd of cattle to graze there they became infected with tubercles.

As naturally the sputum becomes specially dangerous where patients accumulate, the question of removing the danger must be consid-

ered, and above all the cuspidores in order to escape the danger of infection.

Here it must be remarked again that we must proceed with full honesty. We have been in error of the time of the so-called antiseptics to believe that we could kill the germs of infection by weak solutions, for instance of carbolic acid and sublimate; to-day we have come to asepsis.

Perhaps we do many a thing which is superfluous; but we know that we have not arrived yet at a practice which offers full security.

Every disinfection should be absolutely perfect and it should be guarded against that people should become soiled in the transportation. The destruction of the germs should be effected in the cuspidores, and for that purpose I think caustic alkalies and, perhaps, or better yet, potassium hydrate, I consider most efficient. The powder is, perhaps, the best if a light water solution is possible, because the heat generated helps.

Of course such vessels must be so constructed that when used by the patient and in transporting them, no injury can be done to patient and servants, and therefore, the proper material must be selected.

The material of such cuspidores must of course be chemically of good duration and stand a certain degree of heat. The vessel must be closed by a funnel-shaped cover, from which through the infusion and especially through a stream of water the sputum can be easily emptied into the vessel. It is also appropriate to fasten these vessels so that they can be lowered or raised according to the size of the patient.

Naturally enough it is not only necessary to place such vessels in the hospitals and their surroundings, but in all places where a large number of people gather, among whom there are supposedly physical sufferers, as well as in all meeting places, in churches, schools, hotels and recreation localities. The people should become accustomed to use these vessels exclusively, even on the incurrence of penalties.

The people habituated to make use of these vessels in all public places and streets will see that they have a purpose, esthetical as well as sanitary. That the sputa in public streets and places involves a danger is probably a child of scientific imagination. Not only consumptives, but smokers, people afflicted with catarrhs expectorate, and to impose a penalty would border on the ridiculous. Should perhaps a police officer, who prefers the charge, make an "oath" that the sputum contained the Koch cells?

That in sanatoriums for consumptives arrangements for baths and lavatories, for the cleansing of the whole body, are necessary, must be again laid stress upon, as the body extravasations are deleterious.

That the exhaled air contains suspended toxins leads to the deduction that the crowding of patients in the chambers and in the halls should be avoided.

The climatic condition of the establishment of sanatoriums need not be elucidated. Localities free of fogs, strong winds and dust, in moderately elevated woody parts, or in the mountains or by the sea shore, have each their justification and their advantages.

For the rough seasons, localities are of course preferable, which to people from northern countries, a spring or summer season. That, especially at the right time, patients hardened against the changes in weather, may remain in "cold" regions during the winter is shown by experience. In southern health resorts, where in day time violent contrasts of temperature take place, patients injure themselves by carelessness more than in cold regions.

I will call attention here to a circumstance which is of the greatest importance.

Patients, dependent upon their labor, should not be discharged before they are capable to work, and their families should be assisted until the patient is fully restored to health.

If the patients are discharged too soon, relapse is risked, or the disabled fall into pauperism, vagabondage, alcoholism and become a greater burden on society.

Another important question is that of homesteads and who has to establish them.

Philanthropy and charitable societies may give the inducement and take the first steps. The obligation to erect them, however, rests upon the state authorities. The obligation to erect homesteads is parallel with that of establishing hospitals and insane asylums.

Philanthropy works with insufficient means; besides it uses the means at its disposal in a squandering way and deceives under self-conscious praises, its work beyond the extent of its true value.

It must be also pointed out that poor patients should also be cared for by private nursing in families adapted for it, but under competent medical supervision, who should also be entrusted with the hygienic care and supervision. There could be cultivated institutions for private nursing families as it is done in the case of lunatics and foundlings.

Of a colony of such families a health resort could be developed.

We are and will remain for a long time in embarrassment what to do with our sick as long as we have to deal with infected hospitals, health resorts, unduly bad sanatoriums, in which, especially during the winter, influenza prevails, while other healing institutes are lacking or not found in sufficient numbers.

The distribution in qualified private families in the country might after all be quickest organized.

We will call attention to a source of relief at our disposal at this time.

There are many buildings, such as some sanatoria, hotels, boarding houses, etc., which might be put in commission for cases of tuberculosis.

It admits of no doubt that consumptives can be located in winter in mountainous regions, especially patients who have been weather-hardened by timely application of hydrotherapeutic treatment. Such patients can enjoy in winter also, in cold regions fresh air, aside of the fact that the sleeping and dwelling apartments can be kept energetically air-pure.

IX. Duty of Reporting Against Heredity.

The increase of physical, intellectual and moral degenerates in modern times, gave rise to the question of what measures to adopt to prevent heredity. The United States have proceeded in this with greatest energy. This need not surprise us. The senile trend, which characterizes many European conditions, is wanting in that virile empire, in which initiative individuals can prevail much easier. Also the multiplicity of state legislation carries with it, that original, youthfully vigorous legislation upon the soil of ripened science and advantageous insight could be carried through and applied to actually prevailing conditions. The law of Michigan is most vigorous against the danger of heredity. It enacts that all lunatics, epileptics and criminals convicted three times must be castrated before leaving the hospitals. Besides this many States forbid patients afflicted with infection and diseases that are easily transmitted to marry, and Indiana includes in this category sufferers from tuberculosis.

What kind of tuberculous patients would rationally be concerned in such a law? Should it, perhaps, everybody who suffers from a thickening of the apices, where in the sputa the Koch cells have been found and who has suffered once from hæmoptysis? All the world agrees that tuberculosis is frequently curable, and every physician knows fathers and mothers who at one time were seriously threatened with consumption, and who, nevertheless, had a healthy progeny. All cases of past tuberculosis must be, therefore, self-evidently exempted from every measure of force or prohibition.

The prevention of marriage has only an application in florid consumption.

The marriage obstacles will have an effect with such patients, that in the lower stratas of society the concubinates will increase and the male and female gold-fishes will easily circumvent the law.

For the cohabitation outside of wedlock these laws are of no effect. Extraordinary conditions, however, would grow out of it, if hygienic pursuits would succeed, analogous to the Michigan law, to have castration enforced for tuberculous sufferers. With the prevailing mania to-day

for operating, the human family would be decimated. Not even heavily afflicted individuals would justify extreme measures, because cure is not excluded and hereditary transmission is by no means fatal. Hasty play with fate easily leads to tragedies of fate for society.

Most useful it is, when, as in Italy, conviction is carried to the masses that cohabitation with consumptives endangers health, and there is great danger of having sick descendants.

I will mention for the special case, that it is advisable to have a legally sanctioned regulation that every betrothal should confer upon each party, as in case of life insurance, the right to have the other produce a health certificate and that of physicians who enjoy the confidence of the party to search. Self-understood, the physicians must, for this case, be legally freed from the obligation of guarding professional communications.

This leads us to the proposition advanced by many to discuss the obligation of the physician to report cases of consumption. This legal obligation would be one of the worst mistakes which ever emanated on the part of the physicians. As it is untrue that as a general thing, that under favorable hygienic conditions, the intercourse with consumptives is dangerous, then the obligation of reporting might become more fateful.

Think of the danger of causing an unnecessary panic among the people. I have lived to see it immediately after the discovery of Koch and the premature deduction drawn therefrom, and the bad effects it had.

Let us consider that the obligation to report had only a definite sense of the authorities proceeded to isolate the sick. If at every dulness of the apices, with stertorous noise, or bronchial breathing, and with expectoration with Koch cells, we had to make a report, then numberless teachers, all family servants, clerks in bureaus and in industrial establishments would lose their bread through the doctrine that intercourse with them is dangerous, is only correct to a slight extent. Not the obligation to report, but the right to report should be conceded to the physician. Reports should be made only in specially dangerous cases. To wit: Might a teacher in a highly tubercular condition become dangerous when scrofulous, anemic, or children with catarrh attend the school? Society, however, in such cases should come in for the full earnings, if we are not to cause greater misery.

We see that a vast field is conceded in legislation to the question of tuberculosis, a law which takes for its object the erection of sanatoriums and the methods to be followed, which seeks the sanitation and supervision of health resorts, the removal of everything that implies danger may become a blessing.

A MEDICAL STUDY OF THE EFFECTS OF ALCOHOL ON SCHOOL CHILDREN.*

By T. A. MACNICHOL, M.D.

IN a study of the relation of heredity to the mental deficiency of children, undertaken in 1901 for the New York Academy of Medicine. I was forcibly impressed with the conspicuous position occupied by alcohol. A more extensive study verifies the facts then presented and gives added emphasis to alcohol as an etiological factor in mental deficiency.

This subsequent investigation included 55,000 school children—10,790 females, 44,210 males; 17,422 of foreign parentage, 37,578 of American parentage.

These children represented 143 schools and 1,572 classes; 10,800 are from country schools, 44,200 from city schools. Of this latter number 13,000 are from cities of less than 50,000 population.

The conservatism of many school officials, together with the numerous duties of school teachers made it impossible to secure an exhaustive, consecutive, and comparative study of city and country schools; however, the facts secured are sufficient and the field covered comprehensive enough to reveal the relative importance of the underlying causes of mental torpor.

The 55,000 children, classified according to their standing in studies, appear as follows; Standard, 42 per cent.; below standard, 16 per cent.; dullards, 17 per cent.; very deficient, 25 per cent. Direct causes of dullness reported; personal habits, 9 per cent.; environment, 11 per cent.; heredity, 65 per cent.; sickness, less than 1-300 of 1 per cent.

Comparing city and country schools we find a preponderance of deficients in the city. Country schools; Dullards, 15 per cent.; very deficient, 7 per cent.; a total of deficients in country schools of 22 per cent. City schools; Dullards, 17 per cent. plus; very deficient, 29 per cent. plus; a total of deficients in city schools of 46 per cent.

The causes contributing to dullness in country towns are less conspicuous and glaring than those which obtain in more crowded and metropolitan centers. Those that do exist find partial compensation in more congenial environment and healthful activities.

The city, with its multitudinous avenues for advancement, affords unbounded opportunities for the concentration and operation of those retrograde forces which reduce the vitality and capability of children.

In city schools, the children of foreigners make a large percentage of the deficients, but their dullness is directly traceable to causes other than racial. All things being equal the children of the native present

* Vice-President of the American Medical Association for the Study of Alcohol and Inebriety, New York City, N.Y.; *New England Medical Monthly.*

no superiority over those of the foreigner. As an instance; A class of 50, in which 90 per cent. of the children had an American ancestry of five generations, but with hereditary alcoholic taint, reported 80 per cent. dullards.

The personal attitude to alcoholic drinks, including beer, wine and spirits, is reported in 34,000 cases, viz.: Abstainers, 73 per cent.; drinkers of beer, 23 per cent.; drinkers of spirits, including wines, 4 per cent.; drinkers of beer and spirits, 12 per cent.

The parental attitude to alcoholic drinks is reported in 20,147 cases: Children of drinking parents, 6,624; children of abstaining parents, 13,523. Children of drinking parents, 6,624; dullards, 53 per cent.; children of abstaining parents reported dullards, 10 per cent.

The close correspondence between the drinking habits of the parent and the mental deficiency of the child cannot be the result of mere accident.

Heredity is a very important etiological factor in mental deficiency and cannot be ignored in its bearing upon treatment.

In dealing with mental deficients we are prone to mistake some symptom for the cause, and in our efforts to remove the manifestations of disease we conceal the main disorder.

It is well for us to recognize that organic disease, tendency to eye-strain, deafness, various neurotic manifestations, and dullness, each may be the sequel of an alcoholic history. These results should not be mistaken for the primary cause of the disturbance.

One causative factor of dullness which should command close attention is the prevailing drinking habit among children. A few special instances may be noted: Four classes, having a total of 184 pupils ranging from eight to eleven years of age, were reported as "unusually dull," but 16 reaching the standard in study. Investigation revealed the following facts: One hundred drinkers of beer, 9 drinkers of spirits, 51 drinkers of beer and spirits—a total of 160 drinkers (about 87 per cent.), 57 of whom drank "liquors" regularly with their meals.

In a class of 60 boys, of whom 40 are drinkers of beer and spirits, it is no uncommon experience to have one or more stagger into the school-room, drunk.

These juvenile drinking habits are not wholly confined to metropolitan schools. In a town of 6,000 inhabitants, 10 children under 12 years of age were found on two occasions in a helpless state of intoxication.

In a village school of 186 pupils, 30 are occasional drinkers of beer and spirits. When searching for two absentees, boys under 12 years of age, the truant officer found them lying drunk under a shed.

A boy of eight years came into the class room in great distress. On inquiry the teacher found he had taken a quantity of pure alcohol to quench a thirst that beer would not satisfy.

The dangers and temptations from drink are not confined to the child's home.

One teacher reports that a boy of nine came into school drunk. He was induced to confess where he secured his drink. Taking a card from his pocket, he said, "This is my beer card," and explained that a hole was punched in the card every time he got a drink of beer, and that whoever got the most holes in his card in a month got a prize. A large number of the 55 boys in the class acknowledged that they had cards like it, and often bought beer so as to get holes in their cards.

Numerous instances are reported of children acquiring the appetite for strong drink through patronizing the free lunch in a bar-room.

In a number of saloons rooms are fitted up with small furniture, picture books, toys, and hobby-horses, and into which children are enticed to play. The taste for liquor is surreptitiously cultivated, until the habit is securely fastened. Two boys, sons of a highly respected and honored citizen, were thus inveigled into drink and in a brief period sank into the depths of the wildest debauchery.

The immediate causes of dullness dependent upon a vicious environment, habit, etc., are not so easily overlooked as those more subtle yet none the less potent causes which, through heredity, have become implanted in the fundamental structures. Family history is of inestimable value to a clear recognition of the primary causes of dullness.

The following is a summary of the family histories of 3,711 children of 1,100 different families traced through three generations: 1,871 males, 1,840 females; 19 precocious in one or more studies, 421 excellent, 981 fair, 2,290 dullards. The personal attitude to drink: 66 per cent. abstainers, 28 per cent. beer drinkers, 6 per cent. whiskey drinkers, 14 per cent. beer and spirit drinkers. Family history in relation to drink: 2,713 had drinking parents, 2,771 had drinking parents and grandparents, 998 had abstaining parents, 757 had abstaining parents and grandparents.

Of the children of drinking parents but abstaining grandparents, 73 per cent. were dullards. Of the children of abstaining parents but drinking grandparents, 78 per cent. were dullards. Of the children of abstaining parents and abstaining grandparents, 4 per cent. were dullards.

Dividing the 3,711 children into two classes, viz., those free from hereditary alcoholic taint and those with hereditary alcoholic taint, we note some very striking contrasts:

1. Those free from hereditary alcoholic taint: 96 per cent. were proficient, 4 per cent. were dullards, 18 per cent. suffered from some neurosis or organic disease.

2. Those with hereditary alcoholic taint: 23 per cent. were proficient, 77 per cent. were dullards, 30 per cent. very deficient, 76 per cent, suffered from some neurosis or organic disease.

From these studies we conclude:

First. Alcohol at the threshold of life is a bar to success and a foe to health.

Second. Alcohol, by destroying the integrity of nerve structures, lowering the standard of organic relations, launches hereditary influences which by continuous transmission gain momentum and potency and leave their impact upon gland and nerve until mental faculties are demoralized, physical energies hopelessly impaired, and the moral nature becomes degenerate and dies.

Third. If we are to make any material change in the ranks of mental deficients we must adopt methods of prevention as well as methods of cure.

It is a momentous problem that confronts us. The spirit in which we meet it may be a possible aid or hindrance to its solution.

PROGNOSIS AND TREATMENT OF MIDDLE EAR DEAFNESS.*

By W. L. ZUILL, M.D., Professor of Otology, Laryngology and Rhinology, College of Physicians and Surgeons, Los Angeles, Cal.

SPEAKING in a broad sense, we may say that deafness of recent origin is curable, while that of long standing is not. This statement, however, must be influenced by the causes of the condition, and is not to be applied to every case of long standing or recent deafness.

Syphilis, for instance, may cause a very sudden deafness which may never disappear, even when the treatment is begun immediately, in another case of cerumenous collection in old people, may have been the cause of deafness for years, and gradually increasing; such a deafness can be relieved at once with an aural syringe and a little warm water.

It is a fact that in long-standing affections of the ear, whether suppurative or non-suppurative, there will be found such structural changes in the middle or internal ear as will not yield to treatment, even after the cause has been removed.

GENERAL TREATMENT.—We may discuss the general treatment of middle-ear disease under three headings:

(1) Prevention.

(2) Treatment of non-suppurative middle-ear diseases.

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*Abstracted from the Los Angeles *Medical Journal*.

(3) Treatment of suppurative middle-ear diseases.

PREVENTION.—Under the term prevention we mean that we must not do any of those things which tend to provoke an irritative reaction in the ear. Cotton tampons should never be worn in the external auditory canal, except there be a discharge from it, and yet this habit is an extremely common one.

The practice is in no way protective or beneficial, and may be productive of much harm; exception may be made to this rule in some cases; in sea bathing, or while working in extremely dusty or dirty surroundings, or in the presence of great noises.

Under these conditions specially made soft rubber plugs (sound deadeners) are to be preferred.

Hair-pins, ear-spoons and other hard instruments should never be used to scratch the ear or to remove cerumen.

During the treatment of an exanthematous disease, the ear should be kept constantly under observation, by the attending physician, without reference to the severity of the lesions in the nose and throat, which should be carefully treated in order to prevent the infection reaching the ear.

Rupture of the tympanic membrane or concussion of the labyrinth is not infrequently the result of blows upon the ear.

The vicious practice of boxing a child's ears is frequently indulged in by parents and guardians, and in countries other than this by school teachers also.

In persons where there is a tendency to hereditary deafness, scrupulous care must be exercised in order to avoid contracting catarrhal diseases of the nose and throat, if they would preserve their hearing.

DEAFNESS IN SUPPURATIVE DISEASES OF THE MIDDLE EAR.—The management and treatment of middle-ear suppuration is one of the most difficult conditions with which the aurist has to contend.

The middle ear is an ideal incubator; there are present all the conditions of heat and moisture necessary for perfect bacterial development, the accessory cavities are difficult or impossible of access, and a suppurative process once established, has a tendency to continue indefinitely.

This suppurative process will develop into a tympanic abscess, and the tendency always is to break through the drum membrane into the external auditory canal which forms a natural channel for the escape of pus from the middle ear.

Voluntary rupture of the drum membrane should never be allowed to take place; when this contingency happens, the opening is either too small to permit free drainage, or a very large portion of the membrane comes away as a slough, leaving an opening so large that serious complications are likely to follow.

The point of rupture is often so placed that free drainage is not possible, and before the case is seen by the physician irreparable complications to the delicate structures within the middle ear has been the result, not infrequently including the important structures of the internal ear, with more or less complete loss of hearing.

A tympanic abscess should be opened at the earliest possible moment, and the incision should extend through the postero superior, and postero inferior quadrants to the floor of the canal, bearing in mind the fact that the membrana tympani secundaria is in the internal wall of the tympanic cavity almost central in the postero inferior quadrant.

In those cases of spontaneous rupture of the membrane the insufficient opening should be freely enlarged downward and backward.

Dry and Wet Methods.—When the purulent secretion of the middle ear is thus given an opportunity to freely escape into the external auditory canal, its removal therefrom becomes a question for consideration, the technique of which varies according to the views of the attending surgeon.

It may be removed either by the dry method with dry cotton swabs, or by the wet method with an aural syringe or wet swabs.

In the hands of an expert the dry method with inflation will give the best results, with the minimum risk of carrying infection from without. Every particle of discharge can be removed from the external canal with a dry cotton swab, inflation will bring into the canal whatever pus may be in the middle-ear cavity, and at the same time dry the tympanum, dusting the external canal with one of the preparations of iodine such as aristol or europhen, will arrest purulent secretion, and is most favorable to ultimate recovery; the wet method of treatment, especially with a syringe, invariably aggravates the condition; more or less water will always pass through the opening in drum membrane, acting as a local irritant, and causes the secretion from the middle ear to undergo rapid fermentative change, and to become foul smelling, and irritating to surrounding tissues.

Irrigation.—Irrigation of the external canal when there is a perforation in the drum membrane, is always a dangerous procedure, because of the probability of water entering the middle-ear cavity, and rapidly changing a local suppurative otitis media, into a suppurative mastoiditis, with all its serious possibilities.

The irrigation of the middle-ear cavity through the Eustachian tube is always unjustifiable, indefensible, entirely inexcusable, and must always result in converting a localized suppuration of the middle ear into a suffused suppuration of the entire mastoid.

I have never seen any beneficial results from this treatment, but on the contrary have found serious complications follow the application of a treatment which to me is entirely irrational.

SYRINGING.—If, on the other hand, where there is no middle-ear cavity, because of the extensive slough of the drum membrane, with no possibility of the retention of fluids within the cavity, when the advisability of using a syringe for cleaning the ear, may be taken under consideration by the surgeon if he be an expert.

The danger of forcing fluids and pus into healthy portions of the mastoid must always be kept in mind when using a syringe in an ear minus any portion of its tympanic membrane.

The statement made by some writers that gentle syringing is not likely to do harm, is of very uncertain quantity, because of the fact that what would be very gentle syringing in one case may not prove to be in another; therefore to be on the safe side it is advisable to make use of the aural syringe for the removal of pus in exceptional cases only.

Syringing or irrigation of the external canal is only advisable when the drum membrane is intact; never irrigate after a paracentesis, but inflate through the Eustachian tube, for the twofold purpose of forcing out the pus within the middle ear, and drying the cavity, remove the pus from the canal with the dry cotton swab only; use the intratympanic syringe only in those chronic cases of suppurative otitis media where there is more or less complete loss of tympanic membrane, with no possibility of retention of fluids in the middle-ear cavity.

After the ear has been carefully and thoroughly dried, it may be lightly dusted with any of the powdered medicaments, preferably of the iodine class, such as aristol or europhen, and the canal very lightly closed with a pledget of cotton which must be removed as frequently as it becomes soiled, always drying out the canal carefully and dusting with the powder before inserting a fresh pledget of cotton; this procedure may be repeated four or five times a day.

While careful local treatment is thus given to the ear, the nose and throat must not be neglected; you will invariably find in these locations such conditions as will require prompt and energetic treatment, if you desire the ear complications to make rapid recovery.

LOCAL SEDATIVES.—This method of treating painful diseases of the ear has an extremely limited field of usefulness. A poultice should never be thought of.

If there is any reason to believe that there is pus in the middle ear, recourse must be had immediately to incision of the tympanic membrane, and it is better to incise ten that may not require it, than to neglect one when it is needed, and run the risk of spreading an active infection in dangerous directions, even compromising the life of your patient by your temporizing methods of treatment.

HOT IRRIGATION.—The use of hot irrigation is of great benefit to relieve pain, lessen congestion, and check the formation of pus, and is

the treatment, par excellence, in the earlier stages of the disease prior to the suppurative process, and may be used with benefit every three or four hours; during the interval between the irrigations the use of dry heat (hot salt bags) is of advantage. Should pain continue under this treatment it means that there is an unrelieved tension within the middle ear which requires surgical interference.

Blood-Letting.—May be useful in the early stage of disease of the middle ear; the best method for carying out this therapeutic measure is by leeching; when this is not practical, an artificial leech may be used; in cases when you can not make use of either of the above methods, a free incision may be made over the mastoid process behind the auricle down to and including the periosteum; in this way you may secure free bleeding, but by applying to the wound sponges or cloths wet with warm water, considerable blood may be obtained.

Cold Irrigation.—The continuous use of cold water by means of the Leiter coil is the most efficient means at our command with which to combat and abort an active inflammatory process of the middle ear.

It must be begun early in the disease and kept up continually for from thirty-six to forty-eight hours. The pain in the ear is instantly relieved if you are early enough with your coil.

Should pain continue in spite of the coil, it indicates that the drum membrane is under pressure and paracentesis is indicated; again if after thirty-six hours of the cold coil pain returns it is evidence of an accumulation of pus in the middle ear, and myringotomy should be performed immediately.

Here let me make a suggestion, with regard to the Leiter coil as found in the instrument dealers' hands. The lead pipe, of which the coil is made is four m.m. in diameter, which is entirely too small; five m.m. is as small as can be used without annoyance from clogging of the tube.

If the coil is used as indicated, it will be found to be invaluable in the treatment of middle-ear diseases.

Deafness in Non-Suppurative Diseases of the Middle Ear.—This form of deafness is in the majority of cases due to conditions existing in the nose and naso pharynx, and extending over a period of years; such conditions result in sclerosis of the middle ear, depressed drum membrane, ankylosis of the ossicle, etc., accompanied always with more or less loss of hearing of a progressive character.

Nasal obstruction, mouth-breathing, snoring during sleep, should direct the attention of the physician to an examination of the mouth and nose and the removal of those causes which are producing these symptoms; there may be hypertrophied tonsils, adenoid vegetations, enlarged turbinates, nasal polypi, deflected septum, and many other causes.

When deafness is the result of such conditions its early treatment is of the utmost importance if you wish to retain for your patient the function of hearing.

After the tympanic membrane has been depressed until it is in contact with the internal wall of the middle ear, after adhesions have occurred between the ossicles and adjacent tissues, after ankylosis has taken place between the articular surfaces of these bones and after various other changes have occurred, it is usually too late to expect any very great benefits from treatment.

Should such fibrotic change take place in accessible articulations of the body as the knee or elbow, it is one of the most difficult conditions to treat; but when located in the comparatively inaccessible cavity of the middle ear, its management is then very much complicated, and the result of treatment practically nil.

Every operative interference for the removal of the cause of such deafness is practically the only means at our command for the arrest of this progressive loss of hearing.

Removal of the cause does not cure the deafness, it only conserves the hearing at that point; to bring about improvement vigorous and judicious treatment is needed.

MASSAGE.—This method is useful from both standpoints of diagnosis and treatment, and it is very desirable in many cases to be able to produce a rapid change in air pressure within the external auditory canal.

It is often desirable to increase the air pressure in the middle ear, and to balloon the drum membrane; these indications are carried out, first by means of the various forms of vacuum pump apparatus, such as the Siegel otoscope, Deistanche's rarefactor or Breitung pump, and a host of others, all devised for the one purpose, of breaking up adhesions within the cavity of the middle ear, increasing freedom of movement in the ossicular chain, and facilitating the rotation of the foot plate of the stirrup, which alone tends to an improvement in the function of the ear.

Some form of pneumo-massage or ossicular calisthenics is of great value in the treatment of deafness due to impaired ossicular function, or ankylosis, as often seen in the aged. Lucae's spring sound or pneumatic probe is also used for this purpose, and is applied directly to the short process of the mallet, and it is advised by Koenig, of Paris, to paraffine the tip, which prevents the slipping of the instrument.

OPERATIONS.—With apologies to the eminent professor of laryngology and clinical rhinology of the Johns Hopkins University, Baltimore, Maryland, I still continue to believe that in certain conditions, operative interference in the nose gives good results, in combating a middle-ear deafness in the early stages of sclerosis aggravated by nasal hyperplasia and defective ventilation.

Under these conditions the nasal operation is not likely to greatly improve the hearing, to restore the function that is already lost; but it will arrest the progressing sclerosis and prevent the further impairment of this function.

THE NASAL DOUCHE.—Arranged on the syphon principle, the nasal douche is not infrequently used in the treatment of these obstructions; in these cases the patient must be given such explicit instructions as will preclude the possibility of any of the water entering the Eustachian tube.

CLIMATIC TREATMENT.—In suppurative disease of the ear climatic treatment is of no value; in the non-suppurative form it may be productive of a certain degree of benefit if a dry climate and high altitude be selected.

PAPILLARY OVARIAN CYSTS.

Pozzi (*Centralbl. f. Gynäk.*, Leipzig, 1905, No. 9) points out that those cysts are not necessarily to be regarded as malignant, although they may be accompanied with ascites, and have affected a large portion of the peritoneum and omentum. The implantation of papillomatous masses with a single layer of epithelium, is not a similar process to the spread of cancer by way of the lymphatics and veins. He recommends extensive surgical extirpation of those tumors. He has observed the peritoneum becoming spontaneously free from implantation masses (corresponding to the improvement brought about in tuberculous peritonitis) after laparotomy.—*Edinburgh Med. Jour.*

GANGRENE FOLLOWING ECLAMPSIA.

Gutbrod (*Monatschr. f. Geburtsh. u. Gynäk.*, Berlin, Bd. xxi. Heft 6) reports the case of a primipara, æt. 22, who had one fit before and fifteen after delivery. She was treated with chloral, morphia, venesection, and hot packs. It was soon noticed that where skin had been in contact with skin the parts had become gangrenous. So extensive was the destruction of the parts involving the right foot, that amputation had to be resorted to. Gutbrod also reports a second case somewhat similar, where, however, a small injury may have occurred to account for the gangrene. In both cases there was a small amount of albumin in the urine. The theory suggested is, that the poison, instead of being got rid of by the kidneys, is excreted in larger amount by the skin, where it sets up a process terminating in necrosis of the cutaneous tissue, just as necrosis is known to occur in the kidney and liver in many cases of eclampsia.—*Edinburgh Med. Jour.*

QUEBEC MEDICAL NEWS

Conducted by MALCOLM MACKAY, B.A., D., Windsor Mills, Que.

The past month has been one of great activity in hospital building in Montreal. The Montreal Maternity and the St. Paul's Hospital for Contagious Diseases have been opened. The Alexandra Hospital for Contagious Diseases is practically complete, the Royal Victoria is pushing on with its new nurses' home, and the Western Hospital has started the foundations for the new building.

The Montreal Maternity Hospital has been erected at the corner of Prince Arthur and St. Urban streets, at the cost of $125,000, of which $100,000 has been secured. It consists of a main structure for administration purposes, with two large wings, and covers a ground space of 220 feet by 170 feet. It is built of pressed brick upon a limestone foundation and is fireproof throughout. The staircases are of iron and the floors of the corridors are of Venetian mosaic, though in the private patients' department there is an expensive flooring of asbestine which is intended to deaden all sound. Besides ample quarters for the staff and nurses, the building has accommodation for over seventy patients. The ground floor of the main building contains offices, the visiting doctors' room, and the consulting room. In the south wing is a fine suite of rooms for the lady superintendent, also a lecture room, and behind this the students' waiting room fitted up with couches and conveniences for passing the night.

In the north wing this floor is used for the waiting patients, who have a separate entrance from this side. A reception room, examining room, and bathroom occupy one side of the corridor, while the rest of the wing contains a large ward and a diet kitchen. On the second floor the main building contains the sitting-room and bedrooms of the two resident physicians. Across the corridor are the two delivery rooms, separated by a handsomely equipped laboratory. All three rooms are in marble and tiled. The wings on this floor contain large wards for lying-in patients, with balconies, and special rooms for critical cases. On the top flat there is a magnificent operating room in white marble arranged to be conveniently near the elevator. This room will, above all, be appreciated by the staff, as there was no operating room proper in the old building.

Private patients are accommodated in the north wing of this flat, and here, as in the other wards, a sunny nursery has been provided for the infants. The nurses' quarters are found in the other end of the building.

In the basement there is a steam laundry, and a kitchen in tiles and enamel, together with servants' rooms, and at the back, cut off from the rest of the building, two isolation wards, with a nurse's room.

The advantages of such a building to the students of McGill and the nurses of the Royal Victoria and General Hospitals are incalculable. The student will have a chance of following his patient through the whole course of delivery with great facility, and instead of getting a glimpse of the case over the shoulder of a fellow student he will be able to conduct it himself. The small cramped quarters of the old Maternity Hospital proved anything but an ideal place for the student either to wait for a case to proceed, or to see one when being delivered. Nevertheless splendid work has been done in the old building, and doubtless better work will be done in the new home.

The St. Paul's Hospital, which is really the contagious disease section of the new Notre Dame Hospital, was consecrated by Archbishop Bruchesi on October 29th.

Dr. E. P. Lachapelle presented an address referring to the need of a hospital for the prevention of such diseases as measles, scarlet fever, and diphtheria, and thanking His Grace for his aid in procuring the building. He also referred to the offer of the Grey Nuns to care for the sick in the isolation wards. The archbishop made a suitable reply, congratulating the directors upon their new buildings.

The new hospital is situated in Maisonneuve street, and consists of five buildings,—the administration building, 75 feet by 21 feet; the measles building, 91 by 28 feet; the scarlet fever building, of the same dimensions; the diphtheria hospital, 158 by 28 feet, and a small ambulance building. Originally $150,000 was the estimated cost, but this amount has been largely exceeded.

The buildings are all of white brick with dark patterns and slate roofs; they are two stories in height, with a basement, and are equipped and heated in the most approved fashion. A tunnel connects each of the buildings and another is to cross the street to the General Hospital, which is already well advanced. Whether the old Notre Dame Hospital will be abandoned upon the completion of the new building, or will be retained as an emergency hospital, has not yet been decided. A large sum of money will be required to support the new institution, and the question really depends upon the amount subscribed. If sufficient funds are obtained unquestionably the old Notre Dame will remain after being refitted and here all accident cases will be taken and, if necessary, operated upon. The old place is situated perfectly for ambulance work, and last year over a thousand calls were answered. In the new hospital it is hardly to be expected that such a record could be made on account of its uptown situation.

Another new hospital near Montreal has been opened and consecrated by Archbishop Bruchesi. This building is situated at Caughnawaga and was bought and put into good repair by Madame Perronno of

France. The hospital will be a great addition to the town, as it accommodates forty patients in all.

At the last meeting of the Montreal Pure Milk League Mr. S. M. Barre, the inspector, presented a report full of interest to all concerned in the problem of providing a pure milk supply for a city.

Mr. Barre visited 255 establishments, and examined 54,353 head of cattle. The cows were found to be generally in healthy condition, although in three cases tuberculosis was suspected. The food supply was found to be very varied, and in ten cases the water supply was found to be contaminated. On the whole, however, the conditions in this respect were good.

In regard to sanitation, taking 600 cubic feet as the minimum air space per head that should be allowed, it was found that out of the 255 establishments visited, there were only 27 which fulfilled the conditions. In four instances the space was less than 200 cubic feet. Besides this the window space was altogether too limited, and the means of ventilation quite inadequate, one hundred and twenty-five having no ventilators, and nine no windows at all. Only four stables filled all the conditions of sanitation and could be set down as excellent. Of the rest 92 were bad and 84 very bad.

Cleanliness in milking was inquired into, and most of those questioned replied that they were always careful to wash their hands before milking. The inspector, however, has very good reason to doubt this, and in one instance he saw the milker tie the cow's dirty tail to its leg and then straightway proceed with his work.

In the matter of refrigeration great carelessness was found, a little over half the farmers used ice, but nearly all used less than was necessary for the work, and in 246 instances they did not know the temperature of the milk when it was shipped, nine thermometers only being in use. Only six milk-houses or dairies were found to be in proper condition and to have all the requirements for a pure supply.

The inspector calculated that the milk, after reaching town, took as a rule twenty-four hours to reach the customers. Besides this delay the farmers kept it for twelve or fifteen hours before shipping, in all making the milk thirty-six hours old before reaching the consumer. A great deal of milk is also kept over for the Sunday trade, as in many instances the trains do not run on Sunday and the distributors have to keep some on hand for distribution on this day.

Perhaps the most important part of the report dealt with the inspection of milk cans. The shape of these vessels prevents the thorough cleaning which they should have, and as the soldering is poor there are numerous crevices in which the stale milk can accumulate. An amusing instance of the efficacy of inspection was given at Vaudreuil, where Mr.

Barre made a very complete examination of the cans for several days in succession. The first day 40 per cent. were unwashed, the second day 30 per cent., the third day 4 per cent., then a day was skipped, and as the inspector was supposed to have departed the examination on the following day saw the percentage rise to 40 once more.

In conclusion, Mr. Barre stated that although the conditions were bad, the farmers were ready to take up the improvements suggested and that the matter should be brought before the Legislature in order that legal action might effect an improvement.

The following cases were presented at the meetings of the Montreal Medico-Chirurgical Society :—

Rupture of eye-ball; a series of healed cases. Dr. Byers.

Fracture below former fracture sutured with silver wire. Dr. Garrow.

Pathological specimens. Spirochæte Pallida. Dr. Keenan.

Case reports. Paranephric cyst simulating floating kidney. Dr. Elder.

Myxœdema in the male. Dr. Finley.

Tumor of the tongue. Drs. Mackenzie and Gillies.

Papers. The bacteriology of conjunctivitis. Dr. McKee.

The present status of tetanus therapy, with cure. Dr. Archibald.

Lantern demonstration. Colles' fracture as seen by the X-ray. Dr. Girdwood.

At the meeting of the District of St. Francis Medical Society there was some discussion as to the advisability of making up a black list of non-paying patients for the protection of physicians. The matter will be taken up at the next meeting. A revision of the present tariff will also be made at the same time.

Dr. Bertrand reported upon the use of serum in tuberculosis, with some cases in illustration. No definite conclusions could be drawn as in some cases the treatment appeared to be beneficial and in others the reverse.

Dr. Worthington reported the case of a fracture of the skull with loss of consciousness and subsequent good results after removing a clot.

Dr. Byers reported a case of diabetic coma which came on suddenly in a woman who was apparently in good health twelve hours before. Death ensued in six hours. He remarked upon the prominence of the arcus senilis in this woman of fifty-three as being an evidence of some radical trouble.

Dr. Mackay reported a case of quinsy of the lingual tonsil which burst spontaneously on the fifth day. The patient had not been able to swallow for about twenty-four hours before the rupture of the abscess.

CURRENT CANADIAN MEDICAL LITERATURE.

The Canadian Practitioner, November, 1905.

REMOVAL OF THE UTERUS.

Dr. T. S. Webster, of Toronto, read this paper at the meeting of the Ontario Medical Association. He opens his paper with two quotations from the late W. R. Pryor, that, "As a general proposition the removal of the uterus is indicated whenever both tubes and ovaries are to be sacrificed. It is easier to remove the uterus completely with its adnexa than to dig these out and properly treat their stumps," and "I divide my difficulties by splitting the uterus."

Dr. Webster argues that it is not good conservative surgery to leave a diseased uterus that is rendered functionally useless by the removal of both tubes and ovaries, or one that may be potent for future mischief. If both tubes are diseased and suppurating, the body and mucosa of the uterus are also in a pathological condition. The curetting of such a uterus, or other methods of treatment is liable to fail, even after the tubes have been removed. This is a strong reason for the removal of such a uterus at the time the tubes were removed.

The various steps of the operation by the vaginal route are given as follows :—

1. The patient should be placed in the exaggerated lithotomy position, with the thighs extremely flexed upon the body, and buttocks at least six inches beyond the edge of the table.

2. Dilatation and curettage should be performed. The uterus should be swabbed out with gauze folded over the curette and the douche should not be used, as it may run through the tubes into the peritoneal cavity.

3. Posterior vaginal section is performed by grasping the cervix at the sides with two pairs of bullet forceps, not to be removed till hemisection is completed. Cut the mucous membrane half an inch behind its reflection from the cervix with scissors, and never with a scalpel. Dilate the opening by introducing the closed scissors and opening them until two fingers can be admitted. Pull down the peritoneum by the fingers, seize it with forceps and open it with the scissors. Dilate with curved forceps until four fingers can be introduced. This large opening admits of free drainage and an easy examination of the parts.

4. Anterior vaginal section is next done. Introduce the intrauterine traction forceps, pulling the uterus downwards and backwards. The mucous membrane is opened in front, and the incision carried round the sides of the cervix to meet the posterior incision. This incision should

not be made too near the cervix and leave a narrow strip at each side to keep away from the vessels. The bladder is now separated from the uterus with palmar surface of the fingers, pressing hard against the uterus. Extend the separation laterally till the uterine arteries are felt pulsating.

5. Bisect the uterus by drawing it well down by means of the forceps already placed upon the cervix. The anterior half is split open by means of scissors. A suitable director is passed up behind the uterus, and turned out upon the pubis. The posterior half is divided by a probe-pointed bistoury.

6. Clamps are applied to the broad ligaments, one from above, the other from below, and the parts beyond the clamps cut away. It is well to leave some healthy ovary behind. The clamps compress the vessels and nerves, arresting bleeding, lessening pain, and the risk of sepsis.

7. A piece of gauze is placed between the lateral vaginal wall and the clamp handles. The clamps are downwards and outwards, the bladder is held up out of the way, and the perineum held down. The space is filled with strips of gauze that extend from the vagina to above the points of the clamps. The clamps are removed in 48 hours, by unlocking the hands, and the blades removed by a gentle twisting motion. The gauze is removed in seven or eight days. The douches each day should then be given until the mucous membrane is closed.

The paper concludes with a quotation from Bland Sutton to the effect "that the intraperitoneal relations of the uterus and its appendages may be explored with reasonable safety through an incision in the vaginal cul-de-sac."

ADDRESS TO THE GRADUATING CLASS OF McGILL.

Prof. J. M. Elder delivered the valedictory address to the graduates in medicine of McGill Medical College. The address is couched in able language and is full of elevating thought.

In the first place, he reminds his hearers that they are now at the portal of their life's work and are just beginning the race for which they have been preparing themselves. How the race may end is largely a matter of the care each one may give to his professional work and studies.

He reminds his hearers that at least seventy-five per cent. of them would be general practitioners, and it would be necessary for them to be the confidential friend and adviser as well as the medical attendant. It would be necessary for them to be dignified, cautious and upright.

In entering upon the study of the medical profession, and still upon its practice, it was all important that they did it from a sense of love for

it. In the second place, they might hope to make a living by it; but without the first their lifework would be a failure. They would often see persons of less ability make more money in other callings, but against this they must ever remember the good they were doing.

The lecturer held that it was a good thing for a doctor to have something to betake himself to as a recreation. Cultivate some hobby, preferably a medical one, but still a hobby.

He spoke of the vicissitudes and hardships of country practice, and the speaker said that he would urge one to go into it for a time at least, as it tended in a remarkable manner to beget self reliance. He advised his hearers to be slow to leave a good country practice and move into a city. Such a step had often been very disastrous in its consequences; the doctor never securing a good connection.

Stress was laid upon the fact that, unless away on duty, be always in your office or of ready access, so as to render prompt assistance to all who sought advice. Close attention to duty was the royal road to success.

In all circumstances and at all times live up to a high code of ethics. The medical code of ethics was in the interests of both patients and doctors. It would often happen that a doctor would be called in to minister to the patients of other doctors, but this could be done in an honorable manner. It was always possible to give advice and prescribe for the emergency without passing opinions, or offering needless criticisms. A note should be left for the attending doctor, or word sent him, informing him what had been done. In this way doctors could make friends of each other and win the respect of the public.

He recalled to his hearers the excellent advice of Prof. Osler that it was always well to take a period off for the purpose of study—the so-called "brain dusting." A strong plea was made to avoid alcohol and narcotics. The medical man who sought relief for his cares and from his lonely hours by the aid of such means was doomed. In conclusion, he urged that they so live that the honor the University was conferring upon them would in turn come back to her.

The Dominion Medical Monthly, October, 1905.

PRESIDENT'S ADDRESS, BRITISH COLUMBIA ASSOCIATION.

Dr. Brydone-Jack, of Vancouver, in his presidential address, made some observations on a number of important topics. The objects of the Association were to cultivate the science of medicine, to advance the honor of the profession, to elevate the medical standard, to promote public health, and to further harmony among its members.

To accomplish the above objects some important reforms were required. As things are now, when a member does not attend a meeting of the Canadian Medical Association he has nothing for his fee, and consequently does not pay it. The fees of those who attended are scarcely sufficient to defray the expenses of the meeting. It is urged that the Canadian Medical Association charge, say $5 a year, and publish a journal. Of this fee $2 would go to the Canadian Medical Association, $1 to the various Provincial branches, $1 to the local societies, and $1 to the Medical Protective Association. The journal would give the proceedings of the Association and all its branches. In this way the absent member would benefit by his membership.

He urged that the medical profession should become more united in their efforts to maintain their rights, to secure judicious legislation, and to further the cause of the health of the people. In this latter matter much could be done by the dissemination of proper literature throughout the schools. The time was now, while the country was young, to lay down wise foundations on all the subjects that affected the social and physical welfare of the people.

By following out such a course much could be accomplished for the elevation of the standard of medical education and the cementing of bonds of union in the profession.

BILHARZIA HEMATOBIA.

Dr. R. E. Walker contributed this paper to the meeting of the British Columbia Association. He reported two cases of the disease occurring among returned soldiers from South Africa. The history of the two cases were very much alike, and would lead one to think that they were instances of chronic cystitis, or calculus, or Bright's disease.

The parasite of the disease was discovered by Bilharzia in 1851. Its habitat is the portal vein of man, monkeys and dogs. The male is about half an inch in length and the female a little longer and thinner. It is thought that the young embryo may penetrate the anus, the urethra or the skin while bathing. So far as known, the disease is confined to Africa, and mainly to Egypt, Natal and Eastern Africa. The symptoms usually begin with blood in the urine or stools, or both. When the neck of the bladder is affected there may be much pain. Some of the secondary conditions are calculus from the detritus as a nucleus, pyelitis, hepatic abscess, and peritonitis.

The prognosis varies with the amount of infection. In elderly persons it is not good. There is no definite treatment known. The author of the paper found urotropine in grs. vii doses improve the condition of the urine.

TUBERCULOSIS IN NEW ZEALAND.

Dr. W. Stephen contributes a very interesting paper upon this subject. The efforts made in New Zealand are such as should be made everywhere. The author contends that tuberculosis is mainly a house disease and that infection is frequent. With regard to heredity it is admitted that certain families are more liable to infection than others.

New Zealand has established a very thorough health department. Its duties are to have supreme control of the health of the people, with a Minister of Health. A number of regulations have been formulated with the view of suppressing the disease. These regulations cover such important matters as the reporting of cases, the education of the public, the disinfection of houses, the prevention of consumptives landing on the island, and the establishment of sanitoria, etc. Attention is directed to the fact that in such matters as affects the welfare of the people, New Zealand takes a foremost place.

INFECTIOUS DISEASES AND THEIR REMEDIAL AGENTS.

Dr. C. J. Fagan reviews the ground regarding these diseases. He refers to the fact that some animals are immune to certain infectious diseases that are very prevalent among others. The subjects of fermentation and the formation of toxines and antitoxines are discussed. The various theories as to how germs act on the organism are well stated, such as that the germs blocked the smaller vessels or used up the nutriment of the body, or acted as ferments, splitting up the compounds of the body. The accepted view that the bacteria secrete or excrete from their own bodies toxines is then laid down.

It is along this line that recovery takes place by natural efforts, or that medical science aids recovery by the employment of sera. The three fundamental questions to be considered are the natural and acquired toxine immunity, toxine action, and the formation and action of antitoxine. Each of these topics is discussed carefully, along the lines of Ehrlich's theory of free side chains constituting the antitoxine. Unit of antitoxine is such an amount as will neutralize one hundred minimum lethal doses to the guinea pig.

The Montreal Medical Journal, October, 1905.

FORTY CASES OF LEAD POISONING.

This collection of cases is placed on record by Dr. W. F. Hamilton. As to age, the cases were divided thus: Under 10 years, 4; from 10 to 20 years, 3; from 20 to 30 years, 14; from 30 to 50 years, 15; and from

60 to 75, 4 cases. Twenty-six cases were males, and fourteen were females. Alcoholism and uncleanly habits favor the occurrence of the disease in men, and they are also more exposed to lead poisoning. Fifty-five per cent. of the cases were working directly with lead. The occupations of the forty cases were as follows: Painters, 14; in paint factories, 6; plumbers, 1; glass blowers, 1; children, 6; laborers, 2; silk weaver, 1; cabinetmaker, 1; butcher, 1; not stated, 1.

A very interesting group of four cases occurred in a family using old barrels as fuel which contained lead paint. The fumes and dust of the lead from the stove caused poisoning. The silk weaver appeared to have contracted the lead poisoning from the habit of biting the yellow thread, which contained a small amount of lead. Another case was caused by the use of lead acetate as a vaginal douche. One child played in a paint shop, while the butcher seemed to contract his sickness from the use of a hair wash containing lead.

The blue line was found in thirty cases, could not be found in two, was faintly visible in two, and no note of this condition in five. There was distinct anæmia. The form of the disease was as follows: Gastro-intestinal type, 18; neuro-muscular, 11; cerebral, 10; toxæmia, arthralgia and anæmia, 1.

The cerebral type of cases was very interesting. In these cases there were loss of sight, headache, loss of intellect, epileptic seizures, hemiplegia, etc., present as symptoms. Lumbar puncture was performed in two cases with the view of relieving the cerebral pressure, but without effect.

Albuminuria was present in 20 cases, and casts in 16. Lead was discovered in the urine 12 times, but this does not indicate its frequency.

One case had attacks very much resembling hysteria. After a convulsive seizure she had paralysis of the right side, which passed off rather suddenly. Delirium resembling the alcoholic type was present in two cases. Six of the forty cases died.

The treatment was mainly iodide of potassium, magnesium sulphate and other purgatives, strychnine and iron, hot packs and electricity.

TYPHOIDAL PERFORATIONS.

Dr. J. C. Meakins, resident physician Royal Victoria Hospital, gives details of 32 cases of perforation in typhoid fever in a total of 1,230 patients. In 20 of these an operation was performed, with 5 recoveries. The remaining 12 were not operated upon and all died.

The average age of the series was 24.4 years, the youngest being 4 and the oldest 56. Of the group 30 were males and 2 were females. As to the time of the operation, it was about 15 hours after the perfor-

ation in those who recovered, and 20 hours in the fatal cases. The perforation occurred about the fifteenth or sixteenth day of the disease, the earliest being on the eighth, and the latest on the 39th day.

The onset was usually sudden, very rarely insidious. The most important symptom was the sudden onset of pain which was present in 84 per cent. of the cases. Alteration in liver dulness, due to air in the peritoneal cavity, was noted in 10 cases. The pain may spontaneously disappear, or be relieved by opiates or enemata, or it may not come on for some hours after the perforation has occurred. In 21 cases the pain was diffuse. In 1 it was in the epigastrium. It was as often on the left side as the right, and in the majority in the lower half of the abdomen most markedly.

Tenderness was present in every case, sooner or later. It was diffuse in 18, and in the majority of the remaining cases was localized in the lower half of the abdomen. It was very marked in 15, and moderate in 10. The tenderness was most marked where the pain was most distinctly felt. It did not disappear with the disappearance of the pain.

Rigidity developed in 24 instances, and was slight in 3, moderate in 18, and marked in 3. The earliest development of rigidity was 2 hours and the latest 24, and the average time 12 hours after perforation.

As to some other symptoms, nausea and vomiting was present in nearly half the cases, and came on at an average 10 hours after the perforation. Hiccough occurred in 3 cases and was a late sign. The pulse and temperature are unreliable aids in the diagnosis. In 10 of the cases the respirations were increased within 3 hours, and in 20 within 5 hours. In 11 cases there was no change in this respect.

The important points to look for are pain, especially sudden pain, tenderness to pressure, local rigidity, and increased respiration rate. If the case is a doubtful one, it is better to make an exploratory opening than to wait too long.

THE FEVER OF LATE VISCERAL SYPHILIS.

This subject is discussed at length by Dr. Arthur Birt, of Berwick, N.S. He reports a case fully, goes into the diagnosis carefully, reviews the literature upon the subject, and tabulates a series of answers to circular questions sent out to a number of syphilologists.

As to the cause of this late fever, he contends that tertiary luetic processes involving the nervous axis may give rise to it, so may suppurating gummata. The question, however, is there a late true syphilitic fever depending essentially on the syphilitic infection? The view held by the author of the paper is "that in the cases of visceral syphilis

attended with fever, the specific process so interfered with the functionating of the 'liver filter' that leakage of fever-producing toxines into the general circulation is permitted."

From his data he concludes as follows:—

(1) That late (visceral) syphilis is attended with persistent fever much more frequently than is generally supposed; a fever apart from secondary infections and complications.

(2) That the fever is variable in type; but is commonly of low grade and intermittent.

(3) That it is chiefly in those cases where the liver is involved in the specific process that it occurs; and may be explained by "hepatic insufficiency" permitting the leakage of toxins into general circulation.

(4) That it may be associated (occasionally) with chills, night sweats and emaciation so as to simulate tuberculosis, sepsis or malaria—especially the first.

(5) That the "tuberclin" test is of little value in attempting the syphilis-tubercle differentiation and may be risky.

(6) That no difficulties and errors had occurred in the experience of leading clinicians, the only safeguard is eternal vigilance and an exhaustive search for the stigmata of past syphilis in every obscure case of chronic fever. The therapeutic test, though unscientific, is permissible.

(7) That the fever of late syphilis (apart from secondary infections) is, in the great majority of cases, rapidly amenable to treatment by Hg. and KI.

(8) That the best method is by the "mixed" treatment and heroic doses are unnecessary and may be harmful.

POSTERIOR COLPOTOMY FOR PELVIC SUPPURATION.

Porache (*Centralbl. f. Gynäk.*, Leipzig, 1905, No. 5) reports six cases exemplifying the three types of pelvic suppuration, namely, phlegmatous inflammation of the pelvic connective tissue, perimetro-salpingitis, and pyosalpinx. All were successfully treated by posterior colpotomy, and left hospital on the fifteenth day. He believes that more extensive operations with removal of the affected parts are unjustifiable, as giving no better results. Taylor (*Brit. Gynæc. Journ.*, 1905, May) reports three somewhat analogous cases. They were examples of the thrombotic form of puerperal fever, and in each case the side of the uterus and broad ligament was opened up from below in order to reach the centre of suppuration, which were afterwards drained with moist iodoform gauze.—*Edinburgh Med. Jour.*

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

THE TUBERCULOSIS CLINIC AT GOUVERNEUR HOSPITAL.

The *Medical Record*, Sept. 2nd, contains a report by Drs. Bradford and Seymour on the results achieved in this clinic, which was inaugurated in 1903 as a result of the method adopted of subdividing the medical clinic of the hospital into classes. The patients are referred from other departments of the clinic to which they present themselves and are of the class who cannot, on account of their circumstances, go to sanatoria for treatment, and frequently are unable to provide for themselves the nourishment that is a prime requisite in the case. These are provided with milk and eggs in so far as the resources of the clinic admit, are given treatment and trained in the requirements of hygiene and exercise demanded; they report for examination and supply at intervals, and are sent to hospitals if their case becomes unfit for clinic treatment. The treatment is that generally recognized as suitable for such cases, modified necessarily by circumstances, and symptomatic as is required; success has been marked by an improvement in weight in a number of cases, maintenance of the average in others, and a loss in some thirty-five.

"Our results in other respects may be briefly stated. Of the 338 cases which have been admitted during the sixteen months of the clinic, 85 are still under observation; 120 have disappeared, leaving no addresses whereby we might trace them; 52 have gone to hospitals, the country, or to their homes in Europe; 14 have been referred to other clinics as non-tuberculous; and 9 have died. Fifty-one cases have been discharged because they refused to return regularly for treatment, repeatedly neglected to observe instructions, or were being treated elsewhere. Seven cases have been discharged as 'apparently cured,' though they are still requested to report occasionally for observation. In using the term 'apparently cured,' we are following the classification recently approved by the Tuberculosis Congress. Such cases, to quote the report of the committee, are those in which 'all constitutional symptoms and expectoration with bacilli have been absent for a period of *three months;* the physical signs are those of a healed lesion.'

"These results are not startling in any way, but we may venture to believe that the clinic has accomplished four definite and excellent results: (1) It has withdrawn the tuberculous cases into a class by themselves, thus relieving the overcrowded medical clinic and providing some protection to non-tuberculous patients. (2) It has provided a place for the systematic treatment of ambulant cases of the disease in a district of the city thickly populated and extensively exposed to the contagion. (3) It reaches cases heretofore untreated, or treated irregularly and unsystematically at a number of general dispensaries, and the results of this systematic treatment of these cases show a decided relief to most of the more obvious and distressing symptoms of the disease: a prolonged life, actually and economically, to many, and the apparent cure of a few. (4) The patients so treated have become a source of education in their homes rather than a menace to their associates."

HOW TO OBTAIN FREEDOM FROM URIC ACID.

In *The Medical Record,* August 26th, Haig has an article on the subject of uric acid, how to obtain freedom from it, which he recapitulates as follows:—

The greatest freedom from uric acid is obtained by introducing none, and by passing out each day regularly and punctually, all that is formed in the body, and that this regularity of excretion may be attained by clothing warmly, by avoiding exposure to cold in every form, by eating freely of potatoes (especially in cold weather), by avoiding fruits that are out of season, and indeed by never taking fruit to any large extent, except in very warm weather. It is also advisable to secure the proper distribution of time between bodily and mental exertion, and to dispense with dependence on tonics, stimulants, and bracing climates. The result will be a better balance of mind and body, and a more healthy, natural, and useful existence than has been generally experienced either by ourselves or by our ancestors in the previous century.

A CASE OF ACUTE HEMORRHAGIC PANCREATITIS.

In *The Medical Record,* Sept. 2nd, Tinney reports a case of this rather rare condition.

The patient, a man 41 years of age, robust and apparently in good health, was first seen by me on April 23, 1905. At this time he complained of distressing pain in the epigastrium, severe frontal headache, eructations, loss of appetite and constipation for three days. The tongue was thickly coated, pulse 96, temperature 99.4°. He stated that he

had had general malaise for several days prior to returning from a convention, three days before he went to bed, with gradually increasing discomfort. His habits were unusually good and past history negative, except for chronic constipation, and attacks similar to the present one, but not so severe. They were considered to be due to biliousness. Physical examination was negative except for slight abdominal tympanites. There was no tenderness on deep pressure. A provisional diagnosis was made of an acute exacerbation of a chronic lithemia and treatment was directed to the relief of this condition.

The next day the face had assumed an anxious expression, the headache was slightly improved, and the epigastric pain considerably increased. A free movement from the bowels followed the treatment of the previous day, and the tympanites was less marked. During the next two days the patient apparently improved with the exception of the epigastric pain, although this was intermittent in severity. The temperature ranged from 99° to 100.4°.

Typhoid fever was suspected, because of the duration of the fever, and the catarrhal symptoms of the gastrointestinal tract. Intestinal obstruction was not considered, in view of the free movement from the bowels three days before. There was no evidence of disturbance of the appendix or gall bladder. Acute pancreatitis was thought of, but dismissed as the pain was not sufficiently intense, and the patient had been sick for over a week. A Widal examination of the blood was made with suspension culture of sterile bacilli, but the result was negative. The strained specimen of the blood showed no malarial parasite or evidence of leucocytosis. The urine was negative and the diazo reaction not present. The next day the symptoms ameliorated and the following two days the patient was considered to be convalescent.

On Sunday, April 30, about 4 p.m., there was a return of the epigastric pain and at 7.30 p.m., while the patient was on the bedpan, he was seized with excruciating pain in the epigastrium with symptoms of collapse. Surgeon Carpenter and I were immediately summoned and diagnosed a severe intestinal hemorrhage. Treatment proved of no avail and death occurred at 10.30 p.m.

A partial autopsy was permitted. Upon opening the abdominal cavity evidence of an extensive hemorrhage was at once seen by the huge blood clots and serous fluid present. Seeking the origin of this hemorrhage the head of the pancreas was found to be indurated, hemorrhagic, and lacerated from the pressure of a large blood cyst that had ruptured. Several small blood cysts remained with clots in various stages of organization. Although the pancreas was enlarged and indurated, no areas of fat necrosis were observed. The omental fat was unusually opaque, and there was also fatty infiltration of the mesentery

of the intestines. There was no inflammation or ulceration of the intestines or evidence of obstruction. The appendix and gall bladder were normal. The heart showed hypertrophy of the left ventricle. The lungs in the dependant portions were edematous. The stomach was normal. The liver on section was fatty. The kidneys were not enlarged and apparently normal. The spleen was enlarged and friable.

The pathological diagnosis of this case is, therefore, a chronic pancreatitis with acute hemorrhage causing death.

RELIEVING UREMIC HEMIPLEGIA BY LOWERING INTRACRANIAL PRESSURE.

Referring first to a former communication on the subject, and to the conclusions there reached, Robert N. Willson, Philadelphia, (*Journal A. M. A.*, July 1), reviews his later experience in relieving intracranial pressure by lumbar puncture and drainage. He reports and analyzes briefly a number of cases thus treated, describes the other treatment employed and discusses the special points involved. He believes the following conclusions, here given in substance, to be warranted by the study of these cases: 1. The belief is reaffirmed that various toxins are influential in producing uremic symptoms. The most important of these is probably one originating in an abnormal digestive tract and resembling adrenalin in its physiologic action. 2. Resulting from or coinciding with, toxic action, intercranial tension due to accumulated cerebrospinal fluid may and usually does cause most of the classic uremic symptoms and is often the dominant influence. 3. Spinal drainage may, and often does, relieve the symptoms of uremia. 4. Occasionally, however, when intracranial pressure has been relieved the toxin alone may cause the uremic symptoms. 5. Uremic manifestations (other than coma) due to intracranial pressure may be general or localized, including unilateral convulsions, monoplegia, hemiplegia, etc. The toxic influence where it seemed independent of pressure caused only general manifestations, usually of an irritative and seldom or never of a paralytic nature. 6. Uremic hemiplegia and other uremic paralyses are usually due to direct pressure on or edematous infiltration of cerebral motor centres, and are usually relieved by withdrawal of cerebrospinal fluid. 7. The frequent absence of general edema with an excess of intracranial fluid is suggestive. His most successful cases showed no edema of the external body, but always a high intravascular or intracranial tension. 8. Lumbar drainage should be used as a routine measure together with the other known means of reducing hypertension. 9. The ultimate cause of arterial hypertension of uremia is yet unknown.

It seems not impossible that the fluid pressure is due to toxic inflammatory exudate producing intracranial hypertension and favoring a similar condition throughout the system; and that the symptom-complex of uremia is due to such a sequence of causes. Probably uremia cannot occur in the presence of low intravascular and intracerebral tension. 10. It would seem from experimental evidence that the toxic principle of uremia is not found in the cerebrospinal fluid. The experiments of Hughes and Carter in 1893 seemed to show that it may possibly be found in small quantities in the normal blood serum. 11. While lumbar puncture is not infallible or free from slight risk, it should be employed early and repeatedly in uremia if necessary to relieve hypertension. It may be life-saving and will often dissipate uremia for the time being. 12. Transfusion of normal or other salt solution is harmful in uremia by increasing hypertension and favoring some of the conditions of uremic seizure.

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., Eng.
Chief Surgeon Canadian Pacific Railway, Ontario Division; Surgeon Toronto Western Hospital.

FRACTURES AND THEIR TREATMENT.

In the *Boston Medical and Surgical Journal*, July 27th, 1905, F. J. Cotton asserts that too much dependence should not be placed on the X-rays in the diagnosis of fractures; the old manual methods are more to be relied upon. The X-rays are, however, of great value after reduction to see of the fragments are in their proper place, while they are of least value in testing the ultimate result of a fracture. Non-union should not be confounded with delayed union. The author believes that the former is a very rare occurrence and that most fractures will heal if given sufficient time. Disability is often not proportionate to malposition, and the functional result may be very good despite marked deformity. The results in children are especially good, young adults do less well, and in old people a fracture almost always leaves some, if slight, disability. Another important factor in determining the ultimate result is the contracture of muscles and capsule of the joint from long fixation. Cotton therefore lays great stress on the early use of passive motion in the joint nearest the fracture. After fracture of the femur, shortening is a rare cause of disability; with less than one inch there is not even a limp, since this amount of shortening is compensated by a tilting of the pelvis.

Cotton has made an interesting study of the various displacements of the weight-bearing line in fractures of the leg, and their functional results. Forward displacement results in a fairly marked limp and is

due to the sagging of the fragments when the padding of the splint or plaster ceases to be effective. Inward displacement is less frequent and results in lameness and stiffness owing to the fact that the patient walks on the outer side of the foot. Outward displacement leads to a condition comparable to that of "flat" or "weak" foot. These displacements have usually arisen in cases of slow union with long fixation. Cotton is not an enthusiast for massage, but thinks that the so-called modeling of fractures should be used more frequently than it is. He refers to the indications for operative treatment, and, aside from compound fractures, he thinks that the field is small. He believes, however, that no fracture, at least of the shaft of a long bone, should be allowed to remain in a bad position until it unites; as an additional argument for operation in such cases he cites the fact that bones in a bad position will take longer to unite solidly than if operated upon and replaced. Hip fractures should be operated upon more frequently than has hitherto been the case; a tenotomy should also be more frequently done if it renders reduction practicable. In operations near joints, two rules re to be observed: the minimal incision of the capsule and care to *never* leave *two* denuded joint surfaces;—raw bone opposite normal cartilage means a mobile joint, *two* apposed raw surfaces produce fibrous ankylosis.

THROMBOSIS OF THE LEFT EXTERNAL ILIAC VEIN AFTER APPENDICECTOMY.

In the *Zentralblatt für Chirurgie*, July, 1905, O. Witzel states that, in three cases of internal appendicectomy, he has noted indefinite pains in the lower half of the abdomen and rise of temperature occurring about the fourth day, although the wound was in perfect condition. Gradually unmistakable signs of thrombosis of the large veins on the left side develop, such as pain on the left side, tenderness over the region of the external iliac vein, continued rise of temperature and general malaise. In one case slight repeated chills indicated pulmonary emboli. All the cases recovered, but the period of convalescence was protracted from two to four weeks beyond the usual time.

Witzel believes the condition due to the simultaneous ligation of the deep epigastric vessels, *on the right side*, when the abdominal incision is made. Peripherally (above), the veins at once become engorged, the peritoneum is cyanosed and general stasis results. As an aseptic thrombus forms, it sometimes reaches over to the left epigastric vessels and thence encroaches upon the left iliac vein. To avoid this alarming condition, the author advises to leave the rectus sheath unopened, and especially to avoid the hockey stick incision. If the vein is injured *the artery should not be included in the ligature.*

A NEW METHOD OF ORCHIDOPEXY.

In the *New York Medical Record*, August 12th, 1905, Carl Beck states his belief that Beran's method of securing thorough reduction of the testicle by freely liberating the cord is effective, but endanger the blood supply of the testicle.

To retain the organ in the scrotum, Beck has devised what he calls a "necktie operation," of which the following are the steps:—

Incision similar to that in Bassini's inguinal herniotomy, "extending from the external ring for more than three inches downward alongside the normal direction of the cord." Divide the external oblique aponeurosis, the cremasteric fascia, and the transversalis fascia. Open the pouch of the testicle, pull it down and divide all tense bands of connective tissue and peritoneal adhesions. Thus mobilized, place the testicle in a pocket in the scrotum. "To secure it there a flap is dissected from the outer margin of the inguinal ring downwards and turned in such a manner that it can be attached to the opposite layer in a semi-lunar shape," thus surrounding the testicle like a necktie. Unite the aponeurosis above.

Beck does not seem to think that this flap operation will weaken the inguinal canal, but, on the contrary, says that the displacement of the flap narrows the canal. He reports one case.

A SAFE, SIMPLE AND SURE CURE FOR GANGLION.

In *Surgery, Gynecology and Obstetrics*, August, 1905, Benjamin B. Cates deprecates the treatment of ganglia by pressure, striking, aspiration, counter-irritation, or excision. He recommends, as an unfailing cure, injection into the ganglion, by means of a hypodermatic syringe, of 15 to 20 drops of an oily fluid, made by the mixture of equal parts of crystallized carbolic acid and gum camphor (campho-phenol). No aspiration of the fluid in the ganglion is to precede the injection, and only one injection is necessary to effect a cure. A reactionary swelling follows, for which reason Cates applies a splint for a few days, when the ganglion is on the upper extremity, and enjoins rest in bed when the ganglion is on the lower extremity. For a few days after the injection the ganglion does not appear smaller. Then it gradually disappears.

CANCER AND ITS TREATMENT.

In the *Medical Fortnightly*, July 10th, there is a clinical lecture by Dr. Bainbridge, of New York, on cancer and its treatment, in which he states the following practical facts:—

1. All cancer begins as a benign growth.

2. There is, therefore, a true precancerous stage, in which removal is a sure means of relief.

3. The disease is absolutely local in its beginning, and if fully extirpated a cure should result.

4. Extension may take place by direct infection of the surrounding tissue, but it is usually through the lymphatic or blood channels.

5. There is a varying degree of malignancy, some growths tending to return much more readily than others.

6. The system is poisoned by the production of toxins.

7. General malnutrition, as well as diminished vitality of the non-cancerous tissue in the neighborhood of malignant disease, as a rule, tends to increase the rapidity of the local extension and renders more likely the development of metastases.

THE TREATMENT OF BONE CAVITIES.

In *The Journal of the American Medical Association,* May 20th, 1905, James E. Moore reports some very favorable results with von Mosetig's bone plug. Four of his recent cases are reported in detail.

Briefly the method consists in completely filling bone cavities, resulting from operation, with a preparation of wax and iodoform. For success to be attained the following conditions must be fulfilled: The cavity must be sterile; it must be dry; all dead and diseased bone must be removed. The material for plugging consists of sixty parts iodoform, forty parts spermaceti and forty parts of oleum sesami. These ingredients are slowly heated to 100 degrees C., and when allowed to cool form a soft solid which remains solid at the temperature of the body. For use it is heated to 50 degrees C., being constantly stirred to keep the iodoform evenly distributed. At this temperature it can be poured into the cavity, where it immediately solidifies. This material does not act as a foreign body, nor does it act as a culture medium. It possesses the inhibitory and medicinal properties of iodoform without causing iodoform intoxication. Its physical properties are such that it is gradually absorbed and replaced by granulations and finally by new bone.

GYNÆCOLOGY.

Under the charge of S. M. HAY, M.D., C.M., Gynæcologist Toronto Western Hospital; Consulting Surgeon to the Toronto Orthopedic Hospital.

DRAINAGE.

In the *Medical News,* of June 10th, 1905, Ewald says that it is an impossibility to effectually drain the peritoneal cavity. Drainage has

its chief use in cases in which the intestines have been injured and repaired, but in which there is some doubt as to whether the stitches will hold. Instead of relying on drainage, it is best so to treat a patient that the chances of a general infection will be reduced to a minimum. This is best accomplished: (1) By careful indication for operation and operative procedure. All those patients who show a severe infection, through high temperature and other symptoms, should be operated upon only when operation is made necessary to save life, and then a preliminary vaginal incision should be made. We know that pus located intraperitoneally, or in the parametrium, is highly infectious. (2) By selection of the proper time for operative procedure. Pus from a pyosnlpinx is sterile after nine months. When no immediate indication for operative interference exists, it is better to wait. (3) By careful observance of the following preventive measures, protection of the abdominal cavity with layers of gauze, careful separation of adhesions, removal of all visible pus, exact hæmostasis, and rapid operative procedure.

THE PREVENTION OF HERNIA FOLLOWING ABDOMINAL SECTION AND THE IMMEDIATE SECONDARY OPERATION IN DRAINAGE CASES.

Dr. R. L. Payne, of Norfolk, Va., writes in the August number of *Gillard's Southern Medicine,* on the above subject. He says the following rules, if followed carefully, will give the largest percentage of successes in clean operations:

1. Always make the incision along the line of the muscle rather than in the tendinous lines.

2. Never cut the muscles but separate the fibres with the handle of the knife.

3. Suture the wounds in layers, making careful approximation of like tissues and paying special attention to the closing of the aponeurosis, since in this lies the greatest strength of the abdominal wall.

4. Be exceedingly careful of the hæmostasis and of leaving dead spaces in the wound; for, no matter how much you may try, there is no absolute asepsis, and blood clot, in deadspace, affords the most favorable culture medium for the growth of germs, and suppuration in the wound weakens permanently the abdominal wall.

The doctor thinks these well established rules of procedure, if followed strictly, will usually suffice to prevent hernia, but in that large class of cases in which drainage must be resorted to—suppurative appendicitis for example—no such safe-guards can be used and the resulting hernias are numerous.

Dr. Payne has rather a unique method of treating drainage cases. He follows the ordinary custom of packing, renewing it from day to day, until the wound is filled in with granulations up to the level of the muscles of the belly wall. When the granulations are what may be called healthy and the wound practically clean, the patient is etherized, the surrounding skin made as clean as possible, and the whole surface of the granulating wound dried with sponges and mopped over thoroughly with pure carbolic acid to render it as aseptic as possible. An incision is now made outside of the scar-tissue, just beyond the limits of the original wound and this incision is carried down through the aponeurosis into healthy muscular tissue. The scar tissue and the granulation tissue is now dissected out with great care in one piece. He is careful to avoid cutting through the peritoneum for fear of infecting the general abdominal cavity, and is also careful not to cut through the granulations from below so that the bottom of the wound may be perfectly clean. Having finished the dissection, the edges of the aponeurosis and of the skin are freed by a few touches of the knife. The wound is then sutured with interrupted sutures of silk-worm gut, being careful to include the aponeurosis in each suture and to use a sufficient number of stitches to close the wound accurately. The writer reports twelve cases, obtaining primary union in all. He claims that it hastens the healing of the wound and saves the patients many days in bed, and also that it is the best method we yet know of preventing hernia in this class of cases.

The doctor does not believe in the use of abdominal bandages, supports or trusses for the prevention of hernia after abdominal operations. Instead of these, when the patient is ready to rise from bed, the wound is supported by z. o. adhesive plaster applied criss-cross. He also insists on three or four weeks' recumbency, no matter how well the wound has healed, and says a week too long in bed is often the best safeguard the patient can have against post-operative hernia.

VAGINAL OVARIOTOMY.

Buerger (*Centralbl. f. Gynäk.*, Leipzig, 1905, No. 17) reports on 110 cases, with one death. He recommends that during pregnancy the vaginal route should not be employed, on account of the greater tendency to bring on abortion, as compared with abdominal section. In the same journal, Werner reports the mortality after operations for ovarian tumors as 35 per cent., but the majority of deaths were due to malignancy, the mortality of which was 14.6 per cent., for benign tumors only 1.3 per cent., and in uncomplicated cases less than one per cent. He recommends vaginal ovariotomy on account of its being shorter,

simpler, and followed by more rapid convalescence. It was contra-indicated, however, in malignant tumors, extensive adhesions, and solid tumors of large size. As regards technique, he prefers posterior colpotomy as offering no risk of injuring the bladder.—*Edinburgh Medical Journal.*

HYDROCELE IN THE FEMALE.

In *The Annals of Surgery*, May, 1905, Halsted and Clark adopt Rignoli's classification of this condition into five groups: 1, Diffuse hydrocele or hydrocele of the cellular tissue about the round ligament; 2, fluid in the canal of Nuck communicating with the free peritoneal cavity; 3, fluid in the vaginal process, not communicating with the peritoneal cavity, encysted hydrocele; 4, encysted hydrocele in the connective tissue about the round ligament; 5, fluid in the remains of an old hernial sac. A mistaken diagnosis of hernia is often made in this condition. If the possibility of an hydrocele is kept in mind the condition may be determined without operation. The presence of a tense, elastic, fluctuating swelling in the inguinal canal, or extending below the external ring, which has developed slowly, without known cause and gives no impulse on coughing will suggest hydrocele. Operation will reveal the presence of fluid in the sac. A hydrocele and a hernia may coexist. The safest diagnostic procedure is incision, and this is also the most rational therapeutical measure.

REPEATED ECTOPIC GESTATION IN THE SAME SIDE.

Hofmeier, Wuerzberg (*Berliner Kl. Wchus.*, 1905, No. 27), reports a personal observation of a woman, aged 28, who was twice pregnant in the left tube. On the first occasion the sac was removed by operation, but the second time the ovum developed in the remnant of the tube which had been left behind.

THE PERFECTED SURGICAL TREATMENT OF FIBROID TUMORS OF THE UTERUS.

Lewis S. McMurtry, in the *Lancet-Clinic*, September 16, 1905, sets up the following contentions:—In the first place, he combats the common notion of general practitioners that fibroids disappear after the menopause and quotes statistics to show how very often degenerative processes and complications occur. The second point that the author raises is that hystero-myomectomy with burying of the stump is the ideal operation.

In the discussion Ochsner pointed out that most cases of death after this operation are due to necrosis of the stump; he therefore advises thin skin or cumol catgut as ligature material for the closure of the stump, in order that no opportunity can be given to tie the ligatures too tightly. Ries advocated the vaginal operation in many cases for the reason that it is attended by less danger and shock, and excludes the possibility of hernia. In the closing remarks McMurtry opposed the vaginal operation because there is no certainty that all complications have been dealt with. Myomectomy is indicated only in small and subperitoneal fibroids.

THE TECHNIQUE OF STERILIZATION.

Reifferscheid, Bonn (*Zentralb. f. Gyn.*, 1905, No. 19), reports the case of a woman of 32, with an extremely contracted, flat, rickety pelvis, who was delivered by Cæsarean section, and was to be sterilized. After duplicate ligature, a piece 2 cm. long was resected out of each tube. The uterine stumps of the tubes were buried in the cornua, beneath the sutured peritoneum. Nevertheless, the woman conceived again the following year, and had to be delivered by the induction of premature labor. Reifferscheid, therefore, agrees with Kuestner, that if the sterilization is to be absolute, the entire length of both tubes should be removed, their uterine ends being cut out by wedge-shaped incisions.

THE APPENDIX AND ITS RELATION TO PELVIC DISEASE.

Channing W. Barrett, M.D., of Chicago, writes in the September number of the *American Journal of Surgery*, on the above subject. He quotes Douglas as saying, "Appendicitis is the most frequent of all intra-abdominal surgical diseases." Most statistics show a slightly larger number of males affected than females; but attention has been called to the probability that this is partly to be accounted for by the disease being overlooked more often in the female, due to its confusion with tubal and ovarian disease. Other things being equal, appendicitis should be more frequent in the female, where the appendix is closely connected by location, blood supply, lymphatic supply and the appendicalo-ovarian ligament of Clado, to organs so frequently the seat of primary disease as are the tubes and ovaries. It is now well established that appendicitis does occur frequently in the female and that it is frequently found connected with pelvic disease. It is also probable that a primary affection in one organ is a source of infection in the other.

The writer draws attention to the fact that an appendiceal infection is virulent, progressive and tends to destroy life by peritonitis, while the more common infections of the tubes are less virulent, less progressive, and tend to destroy only the pelvic organs or cause less fatal peritonitis. This makes it desirable to have an early diagnosis, for there is not the same urgency for early operation in the latter as in the former cases.

Continuing, he says that, in a case where a differential diagnosis is in doubt, these points are of value:—

Appendicitis.	Salpingitis.
1. Absence of history of infection.	1. Probable history of infection.
2. Onset often follows indiscretions of diet (possibly a menstrual period).	2. Onset at menstrual period, after abortion, childbirth, etc. (possibly at any time).
3. Greater tendency to nausea and vomiting.	3. Less tendency to nausea and vomiting.
4. Greater tendency to constipation, or diarrhœa, or obstruction.	4. Less tendency to constipation, or diarrhœa, or obstruction.
5. Greatest point of tenderness usually near McBurney's point.	5. Greatest tenderness elicited by bimanual examination.
6. Diffuse tenderness over the abdomen; oftentimes disappears upon pressure over McBurney's point.	6. Diffuse tenderness not affected by pressure over McBurney's point.
7. Rigidity of the right rectus muscle.	7. Rigidity of the vaginal vault.

It has been Dr. Barrett's experience that when doubt still existed after taking into consideration these diagnostic points, both organs have been the seat of disease.

The doctor does not approve of the common custom of removing a normal appendix because the abdomen has been opened for other work.

The writer concludes his paper by calling attention to the following points:—

1st. Appendicitis favors the development of salpingitis.

2nd. Salpingitis and other pathological pelvic conditions favor the development of appendicitis.

3rd. Menstruation may favor the development of either one.

4th. The diagnosis of appendicitis in the female meets with greater obstacles than in the male.

5th. For the above reason, it is undoubtedly more often overlooked than in the male.

6th. This is probably one of the reasons, although not the only reason, that statistics show more cases of appendicitis in the male than in the female.

7th. Every gynæcological case should have the appendiceal region thoroughly examined before operation.

8th. It should be a part of every gynæcological celiotomy to examine the appendix.

9th. A pathological appendix should be removed at such celiotomy, when the patient's life is not endangered thereby.

10th. Every healthy appendix should be left at such celiotomy, for in its removal the patient's life may be needlessly endangered; and for every healthy organ removed surgery is brought into disrepute and more people are alienated from it.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., C.M., Lecturer on Obstetrics, Medical Faculty, McGill University, Montreal.

INCONTINENCE OF URINE IN CHILDREN.

Noble P. Barnes, in *American Medicine*, June 24th, 1905, in a short paper, reviews the causes of this condition and gives an extensive table, the comprehensiveness of which is positively alarming, for it compels one to wonder that any children escape from the nursery without suffering from this condition.

In all cases careful search for the cause must be made, and, as this varies from perverted disposition to serious organic nervous disease, it is often difficult to determine, and renders treatment uncertain.

Examination of the urine and fæces must be made, and the dietetic and hygienic conditions carefully regulated before medicinal treatment is undertaken. The importance of systematic training is enforced. Fresh air, plain food, and a simple, quiet life are important therapeutic agents.

During the day children should be taught to retain urine for several hours. Fluids should be withheld towards evening, and except in those cases where the urine is found to be concentrated. The bed should be hard and the coverings light. The foot of the bed may be elevated, and appliances may be attached to the child to prevent it lying on its back, with the object of preventing the fluid in the bladder from pressing on the outlet.

In older children massage or certain exercises may be useful in training the muscles. Cold bathing or the cold spinal douche are to be recommended.

In general atonic conditions, quinine, strychnia and ergot are useful. When the urine is highly acid, lithium salycilate, potassium citrate, and hexamethylene tetramine give prompt relief. Atropin is a general favorite, as it acts both on the spinal centres and the local nervous mechanism.

Wormley, in *The Medical Fortnightly*, St. Louis, Sept. 25, 1905, recommends the method of Ullman, which is as follows: Five drops of a solution of atropin (one grain to two ounces), is given at 4, 7 and 10 p.m., the dietetic and hygienic conditions having been regulated. Daily, the following movements may be employed according to the age or condition of the patient: 1. Having cleared the rectum, the child is placed in the lithotomy position and the index finger inserted into the rectum in such a manner as to tap the sphincter vesicæ. This tapping movement is carried out for about one minute; 2. deep circular massage is then applied to the hypogastric region for from two to three minutes; 3. separation of the knees, which is resisted by the patient, resting in the dorsal position with the legs flexed. These movements have given good results in Wormley's experience and have never given rise to bad habits in the children.

W. T. Freeman, in the *British Journal of Children's Diseases*, for August, 1905, gives his experience of epidural injections in the treatment of this condition. The treatment consists in the injection of fluids, preferably normal saline solution, into the space that lies between the periosteum of the vertebræ and the membranes of the cord. The treatment has generally been employed in children from nine years upwards, and can be carried out without even local anæsthesia. Stimulation of the nerve roots is thus brought about, the effects of which travel up to the lumbar controlling centre, and reflexly excites its corpuscular elements, producing inhibitory changes.

From two to six drachms may be used, and, in severe cases, even twelve drachms. The injection is repeated at intervals of two days, but, if no improvement follows in three or four injections, the treatment may be abandoned.

The patient is placed on a table in the left lateral position. A large glass serum-syringe is employed. The needle should be 1½ to 3 inches long. The loud marks are the sacral cornua and the tip of the coccyx. Work up from the tip of the coccyx until, on either side, the middle line of the sacral cornua are definitely made out. The membrane stretching between the cornua has to be pierced, and, if this be successfully done, the needle runs away, as it were, into space, and the fluid, when the piston is pushed home, disappears with the greatest ease. Keep in the middle line and push home the needle in a direction upwards and forwards.

The reports of twelve cases conclude the paper. Several were successful, but, on the whole, the treatment does not impress one as being so satisfactory in its results as to warrant its being employed in any but desperate cases which fail to yield to the more common methods of treatment.

OPHTHALMOLOGY AND OTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., Professor of Ophthalmology and Otology in the Medical Faculty of the University of Toronto.

OCULAR INJURIES AND THEIR PROGNOSIS.

L. Webster Fox, A.M., M.D., in *The Medical Bulletin*, July, 1905, remarks that in the case of the ophthalmologist, the necessity of his being thoroughly posted needs no comment.

To illustrate to what extent a knowledge of ocular injuries may be necessitated by a general physician, I shall quote the following extract from a recent medical journal.

"The First Appellate Division of the Supreme Court of New York says that the plaintiff in the personal injury case of O'Neill *vs.* Metropolitan Street Railway Co., a woman, 61 years of age, who was the principal of a public school, and whose eyesight had been remarkably good, was, through the negligence of the defendant, precipitated to the pavement with considerable violence, landing on her left shoulder so that she sustained a scalp wound an inch and a half in length nearly on top of her head, above her left ear, and her left collar-bone was fractured. There was evidence indicating that she was stunned, and that her eyesight immediately became blurred; also that immediately after the accident she had such intense pain in her eye and in her head between the wound and the eye that she did not feel the injury to the collar-bone, and continued to have these pains constantly until shortly before the trial, when she had them at intervals of two or three weeks. The fracture of the collar-bone united and healed in about three weeks and she was afterward able to resume her duties as principal of the school. But about fourteen months after the accident occurred she began to have special trouble with her eye, and within the next few weeks consulted two eye specialists, one of whom operated for glaucoma, and during the operation discovered a subluxation of the lens, which in his opinion was sufficient to account for the glaucoma and, in his opinion, caused it. The court is of the opinion that the testimony of the plaintiff, showing a continuity of pain in this eye since this accident, supported and sustained by the medical testimony introduced in her behalf, fairly sustained the finding of the jury that the glaucoma of the left eye resulted from the injuries she received through the negligence of the de-

fendant. It was undisputed that the glaucoma in the left eye destroyed the sight of that eye and communicated to the right eye, ultimately resulting in permanent blindness, and, the court holds, the defendant being responsible for the plaintiff's total blindness, it needed no argument to show that a verdict for $13,580 damages was not excessive.

Burns of the eyelids are rather common injuries and usually result from sudden contact with hot water, steam, flames, caustics, mineral acids, carbolic acid, cigar ashes, powder explosion, molten metal, etc. Taken as a class these burns vary but little from the same kind of burns of the skin elsewhere. The mineral acids and carbolic acid produce burns which are extremely slow to heal. The same may be said of x-ray burns. Apart from these exceptions the denuded areas granulate rather rapidly and scar-tissue replaces the original integument. Herein lies the danger of these injuries. It is the natural tendency for cicatrices to contract, which tendency is exaggerated by the natural elasticity and lack of attachment of the skin of the eyelids. Hence, at remote periods after these injuries, we are likely to find deformities, such as ectropion, entropion, symblepharon, ankyloblepharon, etc. This probability should always be advanced as an argument to any such patient for constant medical attention. Frequently, even in extensive burns, with a knowledge of this possible complication and a little ingenuity, the lids may be so fixed during the healing process as to obviate any deformity. But even then the outlook is not positive and I should warn you against committing yourself in any but the most trivial burns that heal with but little granulation. After these deformities have taken place a great deal may be done for their relief by means of plastic operations and skin-grafting, many of which operations you have seen in this amphitheater and followed their extremely gratifying results. The ability of the individual, as you have no doubt concluded, is a large factor in the success of these operations.

Conjunctival injuries seldom occur without involvement of the lids or the cornea. *Subconjunctival ecchymosis* occurring three or four days after a head injury is significant of fracture of the base of the skull. Such hæmorrhages occurring without the history of any injury point to grave systematic disturbances, such as Bright's disease, diabetes, scurvy, purpura, hæmophilia, vicarious menstruation, etc. As the hæmorrhage is absorbed it becomes yellowish in color, which should not be confused with jaundice in the same location. *Foreign bodies* in the conjunctiva seldom occasion more than a temporary congestion which subsides a short time after the removal of the offending particle. Small pieces of glass occasionally become buried in the conjunctiva and give rise to no end of trouble in their removal, which is best facilitated by means of a spud. Frequently it is necessary to snip away a

small portion of the conjunctiva in order o remove the particle. Grains of powder are extremely difficult to remove and the necessary manipulations may stir up quite a vigorous reaction. If the amount of powder is great, it is probably best to content oneself with the removal of only the larger particles. The cornea is usually involved in these cases. The particles not removed usually become blue in color and constitute a permanent disfigurement. Very few of them slough out. *Exposure to high degrees of heat* occasion a chronic congestion which may last quite a while even after the primary cause is removed. *Pterygium* is in very many cases produced by long-continued exposure to irritants such as dust, sand, etc. and constitutes considerable disfigurement. They should always be removed by operative procedure, of which transplantation is the best. *Burns* are usually produced by acids and alkalies, and such burns produce whitish patches that are painful and at times serious. Ammonia and lime give rise to injuries the outcome of which is difficult to determine inside of three or four days. Even when the cornea is not involved there may be cicatrization and consequent contraction that may give rise to deformities of the lids. In such cases plastic operations are necessary for their relief.

Corneal Injuries.—No class of injuries is deserving of greater consideration than those involving the cornea. In the first place because they are not given the proper attention by the injured person, and in the second place because any injury that does not leave behind some kind of a scar must be very trivial indeed. These scars interfere with vision very greatly. Even a pin-head sized scar in the pupillary area will render vision for fine work extremely difficult, and if situated elsewhere will induce astigmatism that may be difficult to correct satisfactorily. Obviously, large scars produce proportionately serious effects.

Foreign bodies in the cornea constitute the most common forms of injury. In industrial centers we encounter various grades of this injury. Most of these are particles of steel or iron, and if small and immediately removed by skilled hands and receive proper after treatment, leave behind only a superficial abrasion of the cornea which heals with little or no scarring. If on the other hand, the misguided friends of the patient endeavor by means of a dirty penknife, toothpick, nail-file, hairpin, or similar instrument to remove the particle from the highly sensitive cornea (without anæsthesia) we are sure to have a widely abraded surface which becomes infected; a corneal ulcer follows, often refractory to treatment; and a scar results interfering with vision. It seems hardly worth while to add that the proper procedure consists in first irrigating the eye with a mildly antiseptic solution, then cocainize it; after which the foreign body should be localized by

oblique illumination and removed by a sterile spud, the hands of the operator being surgically clean.

Powder burns belong in the same class.

The danger in all these injuries lies in the fact that the damaged cornea does not undergo reconstruction, but the area is replaced by connective-tissue, a cicatrix.

I cannot resist the temptation to warn you in powder burns not to pick off the grains of powder from the cornea with a spud; the trouble is aggravated by irritating the already damaged cornea in this way. The face should be freely washed with hot water or with dioxide of hydrogen diluted one-half. The solution will find its way into the wounds and by chemical reaction with the tissues dissect out much of the powder grain. If we find the cornea very much involved and the boracic solution fails to remove the powder then the dioxide may be applied, after diluting it two-thirds or three-fourths, The water that enters the lids will dissolve the grains of powder and cleanse the parts thoroughly. When examining the cornea, the lids should be kept open by the eye speculum and the eyeballs should be gently irrigated by the eye-douche. While the eye is rotating, gently try to remove the powder grains with a small pledget of cotton; this is the best means of removing foreign bodies of any kind from the cornea. After the removal of all foreign bodies, the eyeballs and conjunctival *cul-de-sac* should be again irrigated with a sterile boric acid solution. Rest of the eye is best obtained by the instillation of one drop of atropine solution (1 grain to 3 drachms). Both eyes should be dressed with sterilized vaseline and eye-pads. This treatment should be repeated at the end of twenty-four hours. When the cornea is hazy, instillation of eserin, ($\frac{1}{4}$ grain to 3 drachms) will aid in its preservation.

Burns of the cornea are rather common and may result from sudden contact with flame, hot ashes, curling iron, mineral acids, carbolic acid, caustic potash, caustic soda, lime, ammonia, etc. The prognosis in these cases is always doubtful and in the case of those produced by the alkalies it should be withheld entirely for a period of three or four days following the injury. Alkali burns may be readily treated by applications of melted tallow, and any oil, unsalted butter, vinegar, molasses, or sugar, substances at hand in every household. The patient should be placed in a darkened room so as to protect the eye from light. The condition of the cornea should be constantly watched, as the structure immediately after the accident may show little or no morbid change, yet in three days may undergo complete exfoliation.

Injury to the Ciliary Body is always a serious condition, owing to the frequency with which plastic iridocyclitis is thereby produced and the possibility of sympathetic ophthalmia in such cases. An area of

5 millimeters in width surrounding the cornea represents the location of the ciliary body and is termed the "danger zone," as wounds in this region are almost certain to implicate the ciliary body. The direction from which a foreign body (particularly a penknife) enters the "danger zone" should always be most carefully noted. The sclera alone may be wounded and the ciliary body escape; in such cases the wound is not serious. The prognosis, however, should always be guarded: Sympathetic ophthalmia is likely to occur in most cases, but occasionally the eye is restored almost to its normal condition, consequently I would advise you to place such cases immediately in skilled hands.

Injuries of the Lens include traumatic cataract and displacement, both of which interfere greatly with vision. In traumatic cataract, the opacity may be very small or may involve the entire lens. In both conditions, when there is a rise in the intraocular tension the danger to the eye is greatly increased, as I have shown in the medico-legal case quoted, and the lens should then be removed.

Foreign Bodies in the Eye are always of serious prognosis. They should be removed when possible to locate and extract them without much damage to the eye. Usually the sight is seriously impaired and the possibility of subsequent sympathetic disease should be considered.

Loss of Vision, after non-penetrating wounds, such as blows upon the eye, should never be given a positive prognosis until after the case has been under observation several days. Even in the absence of hæmorrhages and rupture of the coats, the vision often fails to return.

INJURIES OF THE EYES OF CHILDREN AT BIRTH.

Dr. Brune Wolff, of Berlin, *Hischberg Memorial Volume*, reports four cases of injury to the eyes of children in 581 cases of confinement, with narrow pelves, in the obstetrical clinic of the Charitè. In the vast majority of cases they happen in forceps delivery. The injuries consist of fracture of the orbit, extrusion or protrusion of the eyeball, paralysis of ocular muscles, retinal hæmorrhages, and rupture of the choroid.

OPHTHALMIA NEONATORUM.

Dr. E. Jackson, of Denver, *Jour. A.M.A.*, March, 1905, holds that rigid, clean methods, while they will greatly diminish, will not wholly prevent ophthalmia neonatorum, and that the Credè method, while efficient, sometimes causes irritation. He believes in the use of a less irritating salt than the nitrate. He thinks that social conditions, favouring or opposing the spread of gonorrhœa, are more important than legislative measures, aimed directly at purulent conjunctivitis.

The Canada Lancet

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EDITORIAL.

A TORONTO ACADEMY OF MEDICINE.

At different times, and for many years, the formation of an Academy of Medicine for Toronto has been discussed. Such a movement meets with our approval.

At a recent meeting of the Toronto Medical Society, a committee was appointed to confer with committees from the Clinical and Pathological Societies, should these societies care to act in the matter. We hope that all the societies may approach the question in sympathetic manner.

Such an Academy could arrange for sections, and, perhaps, also to have its transactions published. There is no gainsaying the statement that the medical profession of Canada is not as well known abroad as it ought to be. This is largely due to the fact that the proceedings of our excellent associations are not published in book form. The principal papers do appear in the journals, but this is not so satisfactory as to have them collected together in volume form.

One thing we would protest against, namely, any attempt to force the *British Medical Journal* on the members of the Academy, should such be formed. We yield to no one in our loyalty to whatever is best for the British Empire, but many might wish to become members who would not wish to be saddled with the added cost of the *British Medical Journal*. It would be quite wrong to place any obstacle in the way of these entering the Academy. Everything should be allowed to stand on its own merits.

THE BRITISH MEDICAL ASSOCIATION, 1906.

The arrangements for the meeting of the British Medical Association in Toronto next summer are being pushed on with energy. The various committees have been struck and are already at work. The progress, so far, has been quite satisfactory.

It might be well to mention that anyone who joins the Association is entitled to the *Journal* for one year, and also that no one can attend meetings unless he be a member.

For the success of the Association three things are mainly requisite: A good programme of papers and entertainments, a large attendance of members, and a liberal supply of money to carry out the arrangements for the meeting. We again repeat that the Federal and Ontario Governments must give liberally, and also the City of Toronto must not close its eye to the fact that this is a rare opportunity to act generously. From all that can be learned at least $25,000 will be required.

A UNITED PROFESSION.

Union is strength. This applies to the medical profession as much as it does to the business world. No good reason can be advanced why the profession in Canada should not be united from the Atlantic to the Pacific. It was thought a few years ago that this object had been secured when Dr. Roddick carried his Bill through the Federal House.

But so far it has been abortive, because the Province of Quebec cannot see its way to come into line and support the measure. This we think was a very great mistake on the part of our French *confrères,* and we hope the day is not far off when they will see their way clear to joining in with the great majority of the medical profession throughout the Dominion. We have no hesitation in stating that in the end they would gain by the establishment of a common national standard.

But there is another way by which the medical profession can be unified. The Canadian Medical Association has been the means of doing much good in the past, but it can be made the instrument of very much greater services to the profession and the public in the future. Let it copy the methods of the British Medical Association or the American Medical Association, and it wil soon be found that it will take on a new era of activity. To meet once a year for a few days does not keep alive a continuous interest in the work of the Association.

At the meeting held in Halifax last August, steps were taken looking towards a reorganization of the Canadian Medical Association along the lines of the British or American Associations by the formation of branch But no association can prove a potent factor without adopting some way of publishing its proceedings. The British Medical Association, the American Medical Association, the Royal Society, or the New York Academy of Medicine would lose much of their usefulness if they did not arrange for the publication of their papers and discussions and furnishing the same to their members.

If the Canadian Medical Association will only act along the above lines, it will become a genuine force in the life of this country. To those who have the matter in charge, we wish every success, and hope that the members of the profession everywhere will coöperate with the officers.

ECTOPIC GESTATION.

We recommend Dr. A. A. Macdonald's paper on ectopic gestation in another part of this issue. The subject is one of much importance to every practitioner, as these cases are liable to occur in the practice of any doctor, and call for prompt action. A mistake, as to the time of action or the method of treatment, may cause the loss of a useful life.

The paper was very fully discussed by Drs. Ross, Hay, Hart, Webster, and others, and the consensus of opinion was very strongly in favor of the operative treatment. Whether the operation should be performed through the abdominal or vaginal route must be determined by each particular case.

In the *Journal of the American Medical Association* for 4th November there appeared a paper on the subject of extrauterine pregnancy by Dr. J. H. Carstens of Detroit. The paper was fully discussed by a number of those who heard it. Dr. Carstens condemned such methods of killing the fœtus as by electricity or the injection into the sac of morphin. He claimed that most general practitioners could now diagnose extrauterine pregnancy, and would have the case surgically treated. He laid down the following conclusions: 1. That extrauterine pregnancy must always be in the physician's mind in cases of sudden onset of pelvic trouble; 2. that the least irregularity of menstruation is suspicious of extrauterine gestation; 3. that inflammation and sepsis, following a supposed miscarriage, often are due to ruptured ectopic pregnancy; and 4. that prompt operation is always indicated, the choice of the vaginal or abdominal routes depending on the circumstances.

In discussing the paper, Dr. Thienhaus, of Milwaukee, said that as soon as the diagnosis is made out, whether before or after rupture, the patient should be treated by operation. The only exception would be in extrauterine pregnancy of seven or eight months. It is well to ascertain, if possible, whether the bleeding is free into the abdominal cavity or is incysted in the form of a hæmatocele. When the fœtus is in the uterine end of the tube the danger of severe hæmorrhage is very great. No time should be lost and the patient should be operated upon wherever she may be, and not wait to transport her to a hospital with bleeding going on. In doubtful cases an exploratory incision should be made. In cases of infected hæmatocele the safest course is to drain through the vagina.

Dr. Brockman, of Ottumwa, Ohio, cited a case he had of extrauterine pregnancy along with normal pregnancy, and stated that there were 133 such cases on record. He attempted to operate through the abdomen, but the adhesions were so firm he had to abandon that method.

He closed the wound and a few days later removed the fœtus through the vagina. He did not attempt to remove the placenta, but packed the sac.

Dr. Carstens, in closing the discussion, said that, if the patient was severely collapsed with pulse of 120, it would be well to wait a little; but that, if the pulse was becoming more rapid, to operate at once. Forceps might be placed upon the bleeding vessels and then wait till the patient rallied.

PROPRIETARY MEDICINES CONTAINING ALCOHOL.

The Federal Government of the United States has decided to enforce very stringent regulations regarding the sale of medicines containing alcohol. We trust that the Government of Canada will soon adopt a similar course. The following editorial comments in our esteemed contemporary, *The Medical Times*, of New York, are so appropriate that we take the liberty of quoting them *in extenso*:

"The Internal Revenue Department of the Federal Government proposes to put in force a very just measure; it will tax nostrums containing alcohol, just as it does brands of whiskey. Lest the reader considers this a harsh measure he should peruse the list of Tonic and Bitters which the Massachusetts State Health Department examined for the purpose of ascertaining the percentage of alcohol in each. Among these, Parker's Tonic, 'purely vegetable,' recomended for inebriates, contained 41.6%; Atwood's Quinine Tonic Bitters, 29.2%; Boker's Stomach Bitters, 42.6%; Drake's Plantation Bitters, 33.2%; our old friend Hostetter's Stomach Bitters, 44.3%; Kaufman's Sulphur Bitters, 'contains no alcohol,' does in fact contain 20.5% alcohol and *no* sulphur; Hoofland's German Bitters, 'entirely vegetable and free from alcoholic stimulant,' 25.6%; Richardson's Concentrated Sherry Wine Bitters, 47.5%; Job Sweet's Strengthening Bitters, 29%; Warner's Safe Tonic Bitters, 35.7%; Paine's Celery Compound, 21%; and many more to the same effect. When we reflect that the dose recommended upon the labels of these preparations varies from a teaspoonful to a wineglassful, and that the frequency also varies from one to four times a day, 'increased as needed,' it must be evident that many a pious old humbug (without regard to sex) must from time to time enjoy a 'bender' such as would excite the sincere envy of many an honest, unpretentious, out-and-out toper. The proposed measure, if considerably enforced, will certainly bring grief to many thirsty residents of prohibition States. Such medicines, it is declared, are said to have immense sales in prohibition communities. One advertised compound with a high percentage of alcohol

(nearly as high as that of whiskey) has achieved a sale of nearly 300,000 bottles in one year in one New England (prohibition) State. Hereafter the harmless remedy, the unfailing catarrh cure, the pure vegetable reinvigorator will be taxed precisely as whiskey is, according to the percentage of alcohol. The manufacturer must pay the tax required of manufacturers of spirits, and the druggist who sells these goods must take out a retail liquor dealer's license. So general has become the consumption of the 'medicines' here referred to, espcially in sections where straight whiskey is difficult to obtain, that resulting cases of intoxication are known by the name of the medicine causing it. There is said, moreover, to be a very large sale of these 'drugs' to Indians on reservations, where liquor is prohibited, and the red man who is observed to behave as one with a 'skate on' is characterized as having indulged unduly in some 'sure cure for lame back,' or 'Dr. Quack's Celebrated Kidney Cure.' Presumably the Indian Commissioner must follow the ruling of the Internal Revenue Department, so that one of the most prolific sources of revenue to the producers of blends of cheap whiskey and flavoring extracts will be destroyed.

"The ruling of the Commissioner of Internal Revenue is a reversal of practice. Heretofore the sworn statements of manufacturers as to ingredients has been accepted. Hereafter this will be determined, not by the declaration of the manufacturers, but by the Government chemists, who will go into the open market and buy proprietary articles under suspicion. By the first of December a list will be made, so that the country grocer who keeps a shelf in general family medicines will learn those which he can carry only by becoming a liquor dealer within the meaning of the Federal law. The great strength of the patent medicine abuse lies, in fact, in the value of its advertising to country newspapers. Contracts have been made which would become void on the passage of the pure food laws. It has long been the aim of the reformers of these abuses to require publicity for the formula so that opiates and other dangerous mixtures might be revealed. The influence of country advertising has thus far impeded all such legislative effort.

"It is a pleasure to note, in this relation, that Dr. H. W. Wiley, the chief of the Bureau of Chemistry at Washington, has been instructed to coöperate with the American Medical Association in its crusade against the sale of impure and fraudulent patent medicines. This order issued to Dr. Wiley is in line with the recent activity of the Post Office Department, in issuing fraud orders against several concerns which advertised their products to contain properties not disclosed in the chemical analysis. This coöperation with physicians (the Association is 47,000 strong) is a most welcome innovation."

MEDICINE PAST AND PRESENT.

The following from the *World* of a recent issue is interesting as showing that a lay writer may with very correct appreciations judge some things that are medical.

In these days of appendicitis and singular diseases to which our forefathers were strangers, at least by name, it is diverting to read a paper such as that of S. G. Tallentyre in *The Cornhill Magazine* for October on "Diseases of the Eighteenth Century." It points out in happy vein some of the queer sufferings and vagaries of that faraway period—sufferings and vagaries that we hear about occasionally to-day, but only in traditional fashion along with their somewhat drastic treatments. In that remarkable time "The feeble voice from behind the curtains of the four-post bed—that happiest hunting-ground of the microbe— pleading for air or water was always taken to be, not the voice of the patient's nature, but of the vicious longing of his disease. The variable rule was, when he gasped for breath, to draw the curtains tighter and seal the windows yet more hermetically; when he burnt with fever, to heap on the blankets; when he begged for water, to give him nothing to drink; when he refused food, to stuff him with it; to take a request to sleep as an infallible sign that he ought to be kept awake, and a request to be washed as the solemn token that soap and water would be fatal."

In those days there was a certain prejudice against absolute cleanliness. People were opposed to the free use of water, and to an abundance of fresh air. They hermetically closed doors and windows and kept the night-jar in the sick room. They worried and irritated the patient with all sorts of absurd regulations and ignorant advice. Terrible sanitary conditions existed and over-eating was a habit and excessive drinking a style. These were provocative of gout and gout was a fashionable disease. Frequent, too, were "military fever" and "anatomical fever"—for which the patient was treated by having his nostrils bathed with port wine, the same balm having been generously poured down his throat with a quill. Fainting fits were convenient and popular with the ladies, who deemed it unwomanly to be healthy and ruddy. The poisoning from the white lead with which women doctored their complexions is another complaint that has passed away. Lady Coventry, once one of the beautiful Gunnings, died of the habit, from which nothing could break her.

A disease common to the eighteenth century was that termed with delightful vagueness, "a fever." The modern practitioner, who is required to be much more explicit, may well envy a doctor who satisfied everybody by that elastic pronouncement," writes Mr. Tallentyre.

"Is Charles thickly covered in a rash, or has Betsy come out in boils? A fever. A conplaint which involves a cold in the head and a couple of days in doors, or one which is fatal after weeks of misery and medicines? Equally a fever. Typhus or typhoid, scarlet or gastric, noncontagious or violently infectious—there is not the slightest need to enter into trivial details like that! If after two or three days a fever resolves itself into the smallpox—well, it was a fever to begin with; and, with a nod, as useful and as pregnant as Lord Burleigh's, the family physician easily conveyed to the patient's friends that he knew it all along, only kept the knowledge to himself for their sakes."

For the fever there were pills and powders, large and small headshaving, bleedings and various other eccentric remedies now but rarely resorted to or heard of. Says Mr. Tallentyre: "To be 'blooded' before he went a journey, or made his will, to cure him equally of being too fat or too thin, when he was disappointed in the result of a lottery ticket or too elated by its success, because it was the springtime or because it was not—a man expected this remedy with an expectation that was never disappointed. Louis XIV. was bled 'generously' (the adjective is his doctors,) nine times in the scarlet fever. Bleeding killed alike the Duchesse de Tremouille, in 1709, and her husband, who was bled to death to console him for her loss. When the mob attacked the Duke of Bedford's house in 1765, the doctors remedied the outrage by bleeding the duchess the next morning. When George Selwyn, at Lord Coventry's, fell against a marble table and cut his head open, a surgeon rushed at him and bled him at once, tho, to be sure, Nature was already doing it herself." And the salves and the plasters and the home concoctions know no end. When the doctors failed grandmother often succeeded.

In no known science have progress and development been so great and important from that day to this as in medicine. We may have "itises" that were unknown, but the cures are surer and less trying. Anaesthetics and surgery have accomplished miracles. People are healthier and longer-lived because they live more sanely. There are the strongest reasons for present generations being thankful that the medical conditions of the twentieth century are far in advance of those of the eighteenth.

THE TRAINED NURSE.

In our previous issue we said something about the history and evolution of the trained nurse. This time we wish to speak about the method of training.

For many years and in most hospitals, it has been the custom to furnish board, rooms, uniforms and a small salary to nurses for the

services they render the hospitals during the period of their training. This custom in some respects is changing.

Some hospitals have discontinued any money remuneration, the nurse being expected to give her services for the training she receives. The Toronto General Hospital has adopted this plan, and no doubt others will soon follow.

But some hospitals have gone further, and placed the education of the nurse on much the same footing as that of the medical student, and impose a fee for the privilege of being a nurse in these hospitals, and obtaining a professional training.

Another practice is coming into vogue, namely, that the nurses no longer are furnished with quarters in the hospitals, but room wherever they like, reporting for duty at the appointed hour.

Then, again, some hospitals have adopted the eight hour system for nurses, Grace Hospital of Toronto being one of these.

These changes will do away with some of the attractions to young women to go to hospitals as nurses. Some now, no doubt, enter the work because it affords them a position, maintenance, and a small salary for two or three years. If these attractions are removed, then it will be necessary to furnish a more efficient training, a carefully arranged lecture course in lieu of the above attractions, which are rapidly disappearing. This new condition of things will, we think, bring to the ranks of trained nurses a higher type of women.

From the standpoint of the hospitals, these changes will mean much. The salary bill to nurses is now a heavy drain upon the revenue of these institutions. If hospitals also discontinue the keeping up of a nurses' home, another heavy item of expense will be removed from the pay-roll of the hospitals. As already stated, some hospitals are now imposing a fee upon the nurse, and making her training a source of revenue to these institutions. This is the course which we think will soon be the general one in practice.

PERSONAL AND NEWS ITEMS.

Dr. S. Franklin Abbott, of London, has returned from Britain, where he took a post-graduate course and secured the M.R.C.S. and L.R.C.P.

Dr. Parsons, of Red Deer, Alta., was married recently. He intends continuing his practice in Red Deer.

Dr. Bucke has sold his practice at Kent Bridge and is going to Scotland, where he will take a post-graduate course.

Dr. J. S. McCullough, of Toronto, who has been staying in New York for the last few months, has returned to the city.

Dr. J. M. Conerty, Smith's Falls, and Dr. M. L. Dixon, Frankville, are spending a month among the hospitals of New York and Baltimore.

The marriage of Miss Amy Gertrude Major, daughter of Mrs. John Major, Lachine, to Dr. Harry Clarence Church, of Chelsea, took place on Wednesday, November 15th.

Dr. Samuel Ratcliffe, until lately practising at Moose Jaw, Saskatchewan, a Toronto graduate in medicine, is a patient in the Toronto General Hospital.

The marriage of Miss Minnie Rodgers, daughter of Jos. D. Rodgers, to Dr. A. J. Kerfoot, of Bishop's Mills, took place at the residence of the bride's parents in John street, Barrie.

Dr. T. M. Leask was married to Miss Cecilia Jessie Mitchell, granddaughter of the late Alexander Duff, of Toronto, on November 2. The marriage took place at 21 Maynard avenue, Parkdale.

Dr. W. J. Macdonald, who served with "C" Battery, in South Africa, has located in St. Catharines. For the past two years he has been associated with Dr. Jamieson in Durham.

On November 1st, at the residence of the bride's parents, University avenue, Kingston, Etta, only daughter of Dr. and Mrs. R. E. Sparks, was married to Dr. C. R. Johns, of Thornhill, Ont., one of Queen's clever graduates.

Dr. Claude Freeman, formerly Medical Superintendent of the Hamilton City Hospital, has left for China. He will be assistant to Dr. McCartney, superintendent and surgeon of the General Hospital at Chung King, Province of Sze-Chuan.

The marriage of Miss Maude Violet Akers, daughter of Mr. John Akers, to Dr. George Ernest Millichamp, of Toronto, took place on Wednesday evening, 27th October, at the residence of the bride's parents, Jarvis street. Rev. Canon A. Baldwin conducted the ceremony.

The marriage of Miss Ada Hazlitt Wright, only daughter of Mrs. J. P. Wright, of Seattle, Wash., and niece of Mr. and Mrs. J. S. Willison, to Dr. Wiliam Brown Thistle, was solemnized on 25th of October in St. Luke's Church. The ceremony was conducted by Rev. Archdeacon Langtry, the rector, assisted by Rev. E. W. R. Beal, the curate.

Dr. J. D. Berry, who has practised medicine in Hastings and surrounding country for the past fifteen years, and was, previous to that, for a few years, principal of the Hastings Public School, has sold his practice to Dr. T. B. Edminson, of Castleton, and expected, accompanied by his wife and family, to have left Hastings on November 30th for Cuba.

The many friends of Dr. G. W. Ross, son of Hon. George W. Ross, will be pleased to learn of the distinct success he has attained in London, where he has been pursuing his medical studies. A few days ago he was

elected by the authorities of the Victoria Park Hospital to the post of pathologist and registrar of that institution, a position very highly respected by the profession.

The Faculty of Medicine at McGill will be without the services of Dr. R. F. Ruttan, Professor of Chemistry, during the coming winter. With a view of further perfecting himself in his own special branch of work, Professor Ruttan will spend some months abroad, visiting the leading universities and medical schools in England, Scotland, France, and Germany.

Drs. Temple and Macdonald have terminated their partnership in Bellevue Hospital for Women, Toronto, which has existed the past ten years. This is regretted by many of their patients, as well as by their medical colleagues, who often availed themselves of the home-like surroundings and efficient equipment of "Bellevue." Both Dr. Temple and Dr. Macdonald will continue in their special work, having made arrangements for their cases in other hospitals in Toronto.

BRITISH MEDICAL ASSOCIATION.

Patron: His Majesty King Edward VII., K.G., F.R.C.P., F.R.C.S.

The seventy-fourth annual meeting will be held at Toronto, Canada, on Tuesday, Wednesday, Thursday, Friday and Saturday, August 21st, 22nd, 23rd, 24th, and 25th, 1906.

Programme.

President.—George Cooper Franklin, F.R.C.S., Eng., L.R.C.P., Lond., Surgeon Leicester Infirmary, Leicester.

President-elect.—Richard Andrews Reeve, B.A., M.D., LL.D., Dean of University of Toronto Faculty of Medicine.

Chairman of Council.—Henry Wm. Langley Browne, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon West Bromwich District Hospital.

Treasurer.—Hy. Radcliffe Crocker, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

An address in Medicine will be delivered by James Barr, M.D., F.R.C.P., F.R.S.E

An address in Surgery will be delivered by Sir Victor Horsley, F.R.C.S., F.R.S.

An address in Obstetrics will be delivered.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely :—

Anatomy and Physiology.—President, Professor Bertram Coghill Alan Windle, M.D., F.R.S., Cork. Vice-Presidents, Dr. A. B. Macal-

lum, Toronto; Dr. Alex. Primrose, Toronto; Dr. J. Wesley Mills, Montreal; William Frederick Haslam, F.R.C.S., Birmingham. Hon. Secretaries, Dr. C. B Shuttleworth, Toronto; Dr. Gawn Shaw Cleland, Toronto; William Barnet Warrington, M.D., 69 Rodney street, Liverpool.

Dermatology.—President, Norman Walker, M.D., Edinburgh. Vice-Presidents, Dr. Graham Chambers, Toronto; Dr. Harry B. Anderson, Toronto; Dr. James Galloway, London; Ernest Solly, M.B., Harrogate. Hon. Secretaries, Dr. D. King Smith, Toronto; Dr. Donald MacGillivray, Toronto; John Campbell Rankin, M.B., 38 University Road, Belfast.

Laryngology and Otology.—President, J. Dundas Grant, M.D., London. Vice-Presidents, Dr. George R. McDonagh, Toronto; Dr. H. S. Birkett, Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool. Hon. Secretaries, Dr. David J. Gibb Wishart, Toronto; Dr. Geoffrey Boyd, Toronto; Francis James Steward, M.S., 133 Harley street, London.

Medicine.—President, Sir Thomas Barlow, Bart., K.C.V.O., M.D., London. Vice-Presidents, Dr. Alex. McPhedran, Toronto; Dr. James Stewart, Montreal; Alex. Napier, M.D., Glasgow; Wm. Calwell, M.D., Belfast. Hon. Secretaries, Dr. Robert D. Rudolf, Toronto; Dr. John Taylor Fotheringham, Toronto; Robert Hutchison, M.D., 22 Queen Anne street, London, W.

Obstetrics and Gynæcology.—President, A. H. Freeland Barbour, M.D., Edinburgh. Vice-Presidents, Dr. James A. Temple, Toronto; Dr. Adam H. Wright, Toronto; Dr. Wm. Gardner, Montreal; T. Arthur Helme, M.D., Manchester. Hon. Secretaries, Dr. Frederick Fenton, Toronto; Dr. Kennedy C. McIlwraith, Toronto; Cuthbert Lockyer, M.D., 117a Harley street, London, W.

Ophthalmology.—President, Robert Marcus Gunn, F.R.C.S., London. Vice-Presidents, Dr. Geo. Herbert Burnham, Toronto; Dr. John W. Stirling, Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London. Hon. Secretaries, Dr. James Maccallum, Toronto; Dr. Duncan McLennan, Toronto; Frank Pearson Skeffington Cresswell, M.B., Cardiff.

Pædiatrics.—President, George Alexander Sutherland, M.D., London. Vice-Presidents, Dr. H. T. Machell, Toronto; Dr. Allan M. Baines, Toronto; Otto Jackson Kauffman, M.D., Birmingham; Donald John Armour, F.R.C.S., London. Hon. Secretaries, Dr. E. Stanley Ryerson, Toronto; Dr. Joseph S. A. Graham, Toronto; Ralph Vincent, M.D., 1 Harley street, London, W.

Pathology and Bacteriology.—President, Professor J. G. Adami, M.D., F.R.S., Montreal. Vice-Presidents, Dr. J. J. MacKenzie, Toronto; Dr. W. T. Connell, Kingston; Dr. Ingersoll Olmstead, Hamil-

ton; Professor Robert Fraser Calder Leith, M.B., Birmingham. Hon. Secretaries, Dr. Gideon Silverthorn, Toronto; Dr. Harold C. Parsons, Toronto; Charles Powell White, M.D., London.

Psychology.—President, Wm. Julius Mickle, M.D., London. Vice-Presidents, Dr. N. H. Beemer, Toronto; Dr. Charles K. Clarke, Toronto; Chas. Caldecott, M.B., Redhill; Landell Rose Oswald, M.B., Gartnavel; Hon. Secretaries, Dr. A. T. Hobbs, Guelph; Dr. Goldwin Howland, Toronto; William Frederick Farquharson, M.D., Garlands, Carlisle.

State Meaicine.—President, Dr. F. Montizambert, Ottawa. Vice-Presidents, Dr. Charles Sheard, Toronto; Dr. Peter H. Bryce, Ottawa; Hon. Dr. Pyne, Toronto; Sydney Monckton Copeman, M.D., F.R.S., London. Hon. Secretaries, Dr. J. Langrill, Hamilton; Herbert Timbrell Bulstrode, M.D., London.

Surgery.—President, Professor Irving H. Cameron, Toronto. Vice-Presidents, Dr. Fred. LeM. Grasett, Toronto; Dr. Francis J. Shepherd, Montreal; Dr. A. B. Atherton, Fredericton, N.B.; Dr. T. K. Holmes, Chatham, Ontario. Hon. Secretaries, Dr. H. A. Beatty, Toronto; Dr. Frederick G. Marlow, Toronto; Sinclair White, F.R.C.S., Ranmoor, Sheffield.

Therapeutics.—President, Professor David W. Finlay, M.D., LL.D., Aberdeen. Vice-Presidents, Dr. John L. Davison, Toronto; Dr. A. D. Blackader, Montreal; Sir Alan Reeve Manby, C.V.O., M.D., East Rudham; Professor J. Rose Bradford, M.D., F.R.S., London. Hon. Secretaries, Dr. V. Henderson, Toronto; Dr. C. P. Lusk, Toronto.

Honorary Local Secretaries.—Dr. F. N. G. Star,, Medical Building, Toronto; Dr. J. J. MacKenzie, Medical Building, Toronto; Dr. J. Gibb Wishart, Medical Building, Toronto.

Committee Pathological Museum.—Dr. J. J. MacKenzie, Toronto, Chairman; Dr. Maud Abbott, Secretary; Dr. Gordon Bell, Winnipeg; Dr. W. T. Connell, Kingston; Dr. A. R. Gordon, Toronto; Dr. J. A. McGregor, London, Ontario.

Honorary Local Treasurer.—Professor J. F. W. Ross, Toronto.

Toronto Arrangements Committee.—Dr. Geo. A. Bingham, 68 Isabella street, Toronto; Dr. C. J. C. O. Hastings, 258 Wellesley street, Toronto; Dr. A. A. Macdonald, Bloor street west, Toronto; Dr. J. J. MacKenzie, Medical Laboratories, University of Toronto, Toronto; Dr. Alex. McPhedran, 151 Bloor street west, Toronto; Dr. R. B. Nevitt, Toronto; Dr. R. A. Reeve, President-elect, 48 Bloor street east, Toronto; Dr. F. N. G. Starr, 112 College street, Toronto; Dr. J. Algernon Temple, 333 Bloor street west, Toronto; Dr. D. J. Gibb Wishart, 47 Grosvenor street, Toronto.

Reception Sub-Committee.—Chairman, Dr. I. H. Cameron; Secretaries, Drs. A. Primrose and W. F. Clarke; Drs. N. H. Beemer, G. H. Burnham, W. Harley Smith, W. Britton, R. A. Stephenson, J. T. Gilmour, C. K. Clarke, A. B. Macallum, Dr. Price Brown.

Finance Sub-Committee.—Chairman, Hon. Dr. R. A. Pyne; Secretary, Dr. Wm. Goldie; Drs. Chas. Sheard, C. Trow, J. T. Duncan, Alex. Davidson, W. J. Greig, Ald. A. Lynd, Ald. John Noble, and Dr. J. F. W. Ross, ex officio; G. S. Cleland, Ald. W. S. Harrison.

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OBITUARY.

FRANK BULLER, ESQUIRE, M.D.

A great man rests to-day, his life-work dropped
From out his tired hands; and on his fingers skilled,
That sight to thousands gave, Death's awful seal is set.
The news is flashed abroad—the man, who for
Such long, long years hath tower'd above his fellows,
In skill unique, lies low in Death's embrace.
"There is no death," the poet sings, no death for such
As he, while countless voices speak, both far and near,
To bless his honoured name. Our eyes would pierce
The mystic veil to where the spirit, free from earthly
Taint, expands in larger life; for somewhere in
The vast universe he lives to-day, and sees,
With clearer sight, the face of God. He to whom
Many talents had been loaned, hath surely traded
Well, and even now restores the same unto his
Lord with usury; and from the land of glory
And of shadow—the sacred, unseen land, which
Compasseth our way, there fall upon our
Listening ears the welcome words, "Well done!"

12th October. LUCY C. GILMOUR.

BOOK REVIEWS.

THE FOOD FACTOR IN DISEASE.

Being an Investigation into the Humoral Causation, Meaning, Mechanism, and Rational Treatment, Preventive and Curative, of the Paroxysmal Neuroses (Migraine, Asthma, Angina Pectoris, Epilepsy, etc.), Bilious Attacks, Gout, Catarrhal and other Affections, High Blood Pressure, Circulatory, Renal, and other Degenerations. By Francis Hare, M.D., late Consulting Physician to the Brisbane General Hospital, Visiting Physician to the Diamantina Hospital for Chronic Diseases, Brisbane; Inspector-General of Hospitals for Queensland. In two volumes. London: Longmans, Green & Co., 39 Paternoster Row; also New York and Bombay; 1905. Price, 30s. net.

Dr. Francis Hare is well known throughout Australia as an able and scientific writer upon medical subjects. He has contributed some articles of unusual interest upon the subject of the paroxysmal neuroses, the main theme in the two volumes now under review. We hope that these two volumes will make him better known in this country.

In his introduction he states that "The argument contained in this work proceeds from the consideration of physiological metabolic processes to the elucidation of processes which we are accustomed to regard as pathological: it is, therefore, in the main deductive, not inductive." The author declares that he has "approached the solution of pathological problems from the side of physiology."

Dr. Hare sets out to prove that a number of diseases are caused by errors in diet. That these errors cause certain products to be stored in the system, giving rise to serious derangements. He began his investigations by laying down the hypothesis "that carbonaceous material might, in certain circumstances, accumulate in the blood to an ultra-physiological degree, such accumulation constituting a primary cause of pathological action. To the blood-state supposed to eventuate, the term 'hyperpyræmia' (Gr. pureia = fuel) was applied. The term implies a condition in which the contained fuel or carbonaceous matter is in excess of the capacity of the organism for physiological disposal, whether by katabolism or anabolism." This position arose out of his observations that when he lessened the carbon foods to reduce body weight, attacks of migraine, which were also present in some of the cases, were cured. As an example of the effects of foods and metabolism, attention is directed to the fact that "the temperaments of the lean and fat are in general antagonistic."

The first half of the first volume is given over to the study of the physiology and pathology of metabolism and the formation of the condition which the author names "hyperpyræmia." He then makes the application of this knowledge to the elucidation of that group of diseases known as the paroxysmal neuroses. With regard to the etiology of these

diseases, he says: "The evidence which can be found in medical literature to support this theory is extensive and, to my mind, conclusive. Whatever tends to promote acarbonization of the blood tends to prevent, modify, or disperse, the attacks of the paroxysmal neuroses; whatever tends to promote hyperpyræmia tends to induce, intensify, or render more frequent, the recurring paroxysms." He goes to work to submit the detailed proof of this statement. The evidence submitted goes to show that the primary cause of these neuroses is the carbon contents of the blood.

After an able review of other diseases, usually known as the paroxysmal neuroses, the author concludes by saying, "that we cannot any longer afford to ignore the 'stoking of the human engine.'" The whole argument throughout the two volumes is very ably handled. The literature of medicine is laid under heavy tribute, for Dr. Hare quotes freely from the ablest writers. But there is much in knowing how to quote. It can be said in this case that the author has displayed rare judgment in the manner he has used the opinions of others. Upon the whole field of food in relation to disease he has thrown much light, and we welcome these volumes to a place among the best books in medical literature.

A high word of praise is also due the publishers for their excellent share in the undertaking.

THE MEDICAL DISEASES OF EGYPT.

By F. M. Sandweth, M.D., F.R.C.P., Consulting Physician to H. M. the Khedive, and to Kasr-el-Ainy Hospital, Cairo; Lecturer to the London School of Tropical Medicine; Knight of Grace of the Order of St. John of Jerusalem: Membre de l'Institut Egyptien; Corresponding Member of the Imperial Society of Medicine, Constantinople, and of the American Climatological Association; formerly Vice-Director of the Sanitary Department of Egypt; Professor of Medicine and Examiner at the Egyptian Government School of Medicine, etc. Part. I. London: Henry Kimpton, 13 Furnival street, Holborn, E.C., 1905. Price, $2 net.

This volume deals with the diseases of Egypt. On looking over the list of diseases discussed in this volume, we note that it contains the usual infectious ones, which are so common in this country. But, in addition, a number of infections never seen here are very fully taken up, such as typhus, infectious jaundice, the plague, bilharziosis, anklostomiasis, and pellagra. But the really interesting feature of the work is the new light it throws upon the variations that occur in diseases due to climatic conditions. Many of those with which we are familiar run through clinical courses differing considerably from those of this country. The book is an extremely interesting one, and will well repay a careful study. Among the many important topics for study is that of the diseases of the empire and how they affect its various portions. The

present volume is a very valuable contribution towards this subject. We congratulate both the author and the publishers on the excellency of the first volume, the perusal of which has been of more than ordinary pleasure.

BIOGRAPHIC CLINICS, VOL. III.

Essays Concerning the Influence of Visual Function, Pathologic and Physiologic, upon the Health of Patients, by George M. Gould, M.D., Editor of American Medicine; Author of "An Illustrated Dictionary of Medicine," "Borderland Studies," "The Meaning and the Method of Life," etc. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut street, 1905. Price, $1 net

Dr. Gould has made the subject of refractive errors and their evil effects upon health peculiarly his own. Through the study of the sufferings of eminent persons, as seen in their biographies, he has been able to read into their lives a new meaning. Many a time in reading the life of Carlyle we failed to see why he suffered so much and yet lived to a great age in such vigor. But Dr. Gould has handed us the key that enables us to solve the problem. The present volume is a very interesting one. It gives two new biographies from the medical standpoint, Symonds and Taine. These are written in a very entertaining and instructive manner. The remaining part of the book is made up of papers of a general character on the subject of the visual function and the effects of errors of refraction. On the whole subject we have been very much interested since the appearance of Dr. Gould's early papers, and have reviewed with much pleasure the two previous volumes. The present one is equally worthy of praise. While we have seen a number of adverse criticisms of the author's views, we are free to confess that the author has made out, in our opinion, a complete case. We know of no other books that will afford the same real pleasure to the medical reader as these three volumes of "Biographical Clinics."

VON NOORDEN ON DIABETES MELLITUS.

Its Pathology, Chemistry and Treatment, being the Lectures delivered in the University and Bellevue Hospital Medical College, New York, Herter Lectureship Foundation. New York: E. B. Treat & Co.; 1905. Price, $1.50.

This small volume makes the seventh of the series on the Pathology and Therapy of Disorders of Metabolism and Nutrition, by Dr. Carl Von Noorden. The author is a well-known writer upon all such subjects, having previously given to the profession works on obesity, nephritis, colitis, acid autointoxications, saline therapy, etc. The present volume discusses diabetes mellitus under the several headings of definition, pathogenesis, the acetone bodies, changes in metabolism in diabetes, general

course and prognosis, and the treatment. Some very valuable tables are appended to the volume. Under the head of pathogenesis, the author states that glycosuria may occur in the following conditions: When the sugar exists in an abnormally loose combination in the blood; 2. when the kidneys for some reason or other lose the ability of being impermeable to sugar; and 3. when the blood, from any cause, becomes abnormally rich in sugar. The third group of cases he divides into two classes: 1. The non-diabetic hyperglycæmia, such as the hepatogenous and alimentary forms of glycosuria; and 2. true diabetes, such as arises from (*a*) diminution of the sugar metabolism, (*b*) causes of defective formation of glycogen, and (*c*) the over-production of sugar. A very full discussion is given of the relationship of the pancreas to the disease. He is of the opinion that the normal pancreas produces an antiferment which restrains the too rapid destruction of glycogen. Much attention is given to the acetone bodies, oxybutyric acid, aceto-acetic acid, and acetone. The author then goes fully into the question of acetonuria and diabetic coma. Passing over other portions of the book, we come to the all-important subject of treatment, which he examines under the headings of prophylaxis, etiological therapy, drugs, health resorts, and dietetic. As to the etiological therapy, excellent advice is given on the neurogenous, syphilitic and pancreatic forms. Under the heading of drugs, special attention is given to opium, salicylic acid, antipyrin, syzygium jambulanum. With regard to the dietetic treatment, while much stress is laid upon the proper restriction of the diet so that the carbohydrates be kept below the assimilatious capacity, the dangers of a too rigid diet is clearly pointed out. A valuable food table is given. We commend this little book as the very deliberate expression of opinion of a very high authority.

A TREATISE ON DIAGNOSTIC METHODS OF EXAMINATION.

By Prof. Dr. H. Sahli, of Bern. Edited, with additions, by Francis P. Kinnicutt, M.D., Professor of Clinical Medicine, Columbia University, N.Y.; and Nath'l Bowditch Potter, M.D., Visiting Physician to the City Hospital and to the French Hospital; and Consulting Physician to the Manhattan State Hospital, N.Y. Philadelphia and London: W. B. Saunders & Company, 1905. Octavo of 1,008 pages, profusely illustrated. Cloth, $6.50 net; half morocco, $7.50 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge street, Toronto.

We have been anxiously awaiting the publication of Dr. Sahli's great work in English. Its immediate success in Germany will certainly be repeated in this country, and the English-speaking profession owe to Messrs. W. B. Saunders & Company a debt of gratitude for their enterprise. Not only does the distinguished professor exhaustively consider

all methods of examination for the purpose of diagnosis, but the explanations of clinical phenomena are given and discussed from physiologic as well as pathologic points of view, and with a thoroughness never before attempted in any clinical work. The examinations of the stomach, sputum, feces, urine, and blood are exhaustively treated. There is an article from the pen of Dr. Theodore C. Janeway giving a brief review of the investigations of American and English observers upon the value of the clinical estimation of blood-pressure, with a description of some newly devised instruments. Some of the new features in the chapter on urine examination are: Seliwanow's reaction for levulose, Bial's test for pentoses, and quantitative determination of urochrome after Klemperer. Osmotic pressure and cryoscopy of the urine are also discussed at length, and a description is given of Liebermann and Posner's method of staining urinary pigments. In the chemical examination much attention is directed to describing methods; and this is done so exactly that it is possible for the clinician to work according to these directions. The nervous system has been very elaborately detailed, giving unusual space to electrical examination. Indeed, the American edition of this great work contains all the material of the new fourth German edition, with which it simultaneously appeared. Many new illustrations have been added by the editors. The work is indispensible to the practitioner.

HARE'S THERAPEUTICS.

A Text-Book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Hospital, etc. New (11th) edition, enlarged and thoroughly revised to accord with the eighth decennial revision of the U. S. Pharmacopœia, 1905. In one octavo volume of 910 pages, with 113 engravings and four colored plates. Cloth, $4.00 net; leather, $5.00 net; half morocco, $5.50 net. Philadelphia and New York: Lea Brothers & Co., 1905.

Dr. Hare possesses the invaluable faculty of intuitively discriminating between the important and the unimportant, between the practical and the impractical. This is what every physician and student most desires to learn, and everyone also wishes to be spared the labor of sifting for himself. It is not surprising that the writings of an author who tells his readers what they want to know, and who puts facts directly and simply, should be in great demand. Hare's Therapeutics, for example, has come to its eleventh edition in fifteen years. What this means may be gathered from the fact that each edition has had to be put to press several times to satisfy requirements. Such rapidity of sale has

enabled the author to keep his book always abreast of the times, a most important matter in so progressive a subject as Therapeutics. In the new edition just at hand it has been thoroughly revised to accord with the new U. S. Pharmacopœia.

The volume is divided into two main sections, the first dealing with drugs, remedial measures and foods for the sick, and the second with applied therapeutics, or the use of drugs in the treatment of disease. Each section is arranged alphabetically to facilitate reference, and the two are closely cross-referenced, so that complete information on any point is easily found. There are two indexes, one of drugs and the other of diseases and remedies. The latter is annotated, and thus affords at a glance a suggestive list for selection of the most appropriate agent according to the indications of the case. It would be difficult to conceive of a work answering the needs of students and practitioners better than this, either in plan or execution.

THE PHYSICIAN'S POCKET ACCOUNT BOOK.

Dr. J. J. Taylor has arranged a neat, compact, easily-kept and strictly legal book, which can be carried in the pocket, always with one, and showing each person's account at a glance. All entries are made but once, on the day when the services are rendered, in plain, legal language, and require no posting or further attention. It is of great value to every doctor to be able to tell his patients at any moment how their accounts stand. We have examined this little book and can state that it is quite satisfactory in every way. By using it and following the methods laid down in it, we are sure doctors would save themselves much work and loss.

Briefly, then, the advantages of this book are:—1st. Easily kept—requiring about one-fourth the time of other styles. 2nd. Simple and easily understood by all. 3rd. Always up to date without posting. 4th. Always with you to show any one his account when he wishes to pay. 5th. Strictly legal and entirely admissible as evidence. 6th. No more expensive than other forms of books.

The book contains obstetric, vaccination and death records and cash accounts. The book is $4\frac{1}{4}$x$6\frac{3}{4}$ inches, containing over 200 pages. Bound in leather, $1.00. Also bound in manilla boards with separate leather case. Price of case and two manilla books, $2.00. Subsequent manilla books to use in the case, 60 cents each; two for $1.00; three for $1.40. Published by the Medical Council, 4105 Walnut street, Philadelphia, Pa.

NEUROTIC DISORDERS OF CHILDHOOD.

Including a Study of Auto and Intestinal Intoxication, Chronic Anæmia, Fever, Eclampsia, Epilepsy, Migraine, Chorea, Hysteria, Asthma, etc., by B. K. Rachford, M.D., Professor of Diseases of Children, Medical College of Ohio, University of Cincinnati; Pediatrist to the Cincinnati, Good Samaritan and Jewish Hospitals; Member of the American Pediatric Society, Association of American Physicians, etc. New York: E. B. Treat & Company, 241-243 West 23rd street, 1905. Price, $2.75.

This is a compact, handsome volume of 440 pages. The first part deals with the general aspects of the subject matter of the book, such as the functions of the nerve cell, peculiarities of the nervous system of the child, toxæmias of intestinal, glandular, or bacterial origin, and excessive nerve activity. The second portion of the book discusses the individual neuroses. The book throughout is very suggestive and original in its method of treating familiar topics. From the viewpoint of the author, the reader sees these affections in a somewhat new light, and the relationship they bear to the constitutional states upon which they depend. The author possesses a clear and concise style which adds much to the pleasure of reading the book, which would be real enough on the grounds of its intrinsic merits. We can recommend this book as a decided addition to the literature of children's diseases. We are glad to believe that much more attention is being paid by the general practitioner to these diseases than was the case some years ago. Of the many books on children's ailments, the present volume is both interesting and instructive.

THE PHYSICIAN'S VISITING LIST.

This is the edition for 1906 of Messrs. P. Blakiston's Son & Company's excellent pocket visiting list. The book is now in its 55th year and is well known and highly appreciated by all. It is certainly about as complete as such a book could be made. We have much pleasure in recommending it to all who require such a book. Price, $1.00 for 25 patients; $1.25 for 50 patients. Philadelphia: P. Blakiston's Son & Co.

MISCELLANEOUS.

THE "LIFE" OF DIPHTHERIC ANTITOXIN.

The opposing positions assumed in regard to this important point by the leading American manufacturers of Biologic Products, is not without interest to the profession.

It is difficult to say where originated the widespread belief that antitoxin was more potent when of recent manufacture.

The timidity of the manufacturer at a time when antitoxin was little known and less in demand, was no doubt warranted. The conditions of the trade at that time, too, compelled the manufacturers to place their serums on practically a storage or commission basis, to secure its introduction to the profession. It is apparent, after looking into the findings of scientific investigators, that the continental opinion on this point has been more generous in the matter of time than has been the case in America. Any one who had visited the leading Biologic laboratories five years ago and again to-day, will be prepared to admit that great advanecs have been made in the procedure of manufacture and in the consequent quality of the serum. Granting that the potency period of the serum of a few years ago may have been of shorter duration. It is reasonable to concede that the improved product of to-day should be of longer potency. It is certain that the more uniform methods of testing and re-testing, have contributed to a fund of information on the subject. Abba of Turin, McFarland of America, Chiadini of Italy, Roux of Paris, Libbertz, Marx of Frankfort, and Miller of America, in the sequence named, have published their experiments, each showing that this empirical belief was not well founded. The scientific standing of these men is above reproach and their reputation well establish. The concensus of their opinion would show that two years was a perfectly safe dating, and although others are satisfied to place it at five years, Libbertz, in particular, is of the opinion that any diminution in antitoxic strength occurs during the first few months, but that its strength remained unimpaired for years after.

The report by Marx is concluded with the strong statement that "any mistrust of old serum is unfounded." Miller, whose work has been confined to American serums which have been returned from the market as "expired" and useless, concludes his report with the words "the demand for fresh serum is not justified."

With these facts before us from competent authorities covering the work of years, we are of the opinion that the present time limit can, with safety, be very materially extended, and that even a three year old serum may be just as effective as one that is only a month old. There seems to be no positive evidence adducible to support the contrary opinion beyond the accepted habit of years.

IRON THERAPY IN THE TREATMENT OF SMALLPOX.

By MARTIN C. WOODRUFF, M.D., St. Louis, Mo.

As far back as 1893 my attention was first called to Pepto-Mangan (Gude). But it was not until the spring of 1895, when I was appointed Superintendent of Quarantine and Smallpox Hospital at St. Louis, that I had opportunity to test thoroughly its merits.

Upon my entrance to the aforesaid institution I found 118 patients in various stages of variola. The sanitary conditions were not of the best, consequently septicemia, pyemia, boils and abscesses were of frequent occurrence; in fact, one ward of some 25 odd beds was used exclusively for this class of patients.

In my endeavor to combat this condition of affairs, my mind of necessity reverted to the iron preparations. After using iron in its numerous forms, I found it entirely too astringent and acid to exhibit for any length of time.

It was at this time that my previous experience with Pepo-Mangan (Gude) led me to make some experiments to ascertain for my own benefit the actual value of iron and manganese in these conditions.

After several months' continuous examination (micro-scopical) I found that in all cases of variola the hemoglobin was diminished to less than 42 per cent, and the red blood corpuscles were diminished to such extent that the actual average count in some 85 cases was less than 2,273,000. After four weeks' treatment (the general average time patients were confined to the institution) the hemeoglobin had increased 50 per cent. and the red blood cells 46 per cent. Believing that these cases were exactly suitable and amenable to treatment by Pepto-Mangan (Gude), provided it would do what was claimed for it, I decided to exhibit it exclusively and prove the results by actual demonstration in the increase of the number of red blood corpuscles.

The similarity of these cases of necessity make the history of one the history of all. For this reason I will not burden my readers with a repetition of a number of cases, but will confine myself to a few exceptional cases.

Case 1. Age 17; diagnosis Variola Confluens, followed by a general pyemia. Period of treatment, 24 weeks. First count 2,323,000 hemoglobin 42 per cent. Second examination, after 8 weeks, red blood cells 3,722,000, hemoglobin 58 per cent. Third examination, 16 weeks, red blood cells 4,122,000, hemoglobin 67 per cent. Fourth examination, red blood cells 4,899,000, hemoglobin 79 per cent. Result, cured.

Case 2. Age 25; diagnosis, Variola Semi-confluens, followed by puerperal septicæmia. Period of treatment, 15 weeks. First count, 3,123,000 red cells, hemoglobin 62 per cent. Second examination, red cells 5,325,000, hemoglobin 89 per cent. Result, cured.

Case 3. Age 16; diagnosis, Variola Semi-hemorrhagic, uncomplicated. First examination, red cells 2,824,000, hemoglobin 42 per cent. Period of treatment, 6 weeks. Second examination, red cells 4,376,000, hemoglobin 83 per cent. Result, cured.

Case 4. Age 10; Variola Discreta with scarlatina, both infections occurring simultaneously, a most malignant and rare disease. In this.

double infection the anemia and depression were profounded. First examination, red cells 2,036,000, hemoglobin 28 per cent. Period of treatment, 8 weeks. Second examination, 5,102,000 red cells, hemoglobin 88 per cent. Result, cured.

At the beginning of my first term as Superintendent of Quarantine the mortality was 21 per cent. In twelve months it has been reduced to 9 per cent., and in the last year of my incumbency there were but sixteen deaths in 1,749 cases, showing the very low mortality of less than 1 per cent. It may not be generally known, but it is a fact, that death occurs in variola during the time that absorption begins to take place, which is about the twelfth day of the eruption.

Now, if by the administration of drugs the percentage of hemoglobin and the number of red blood cells can be brought anywhere near the normal before this period of absorption takes place, we, of necessity, increase the power of resistance tenfold.

I would not like to be understood as saying that the mere use of pepto-mangan caused the remarkable decrease in the mortality at our institution, though I am quite sure that it played a major part in producing the result.

During my incumbency as Superintendent at Quarantine Hospital, I had under my sole care a case of leprosy, which was finally pronounced cured after no recurrence had taken place for a year after a total abeyance of all symptoms. From first to last in the treatment of this case pepto-mangan was used as a tonic and reconstructive. The blood count was never made in this case at any time.

Eight years of my time was devoted exclusively to this institution, and I treated personally some 4,000 cases, and that my faith in pepto-mangan, as the very best treatment in variola, had not diminished one iota is exemplified by the purchase of quantities just prior to severing my connection with the smallpox hospital.

Before bringing this article to a close, I wish to make it plain that constipation throughout the entire course of variola is a contending factor. For this reason preparations of iron which would further aggravate this condition, are contra-indicated. At no time did I find this to be the case where pepto-magan was administered.

Another and very great feature is the stability of the preparation. In my twelve years' experience with this preparation I have never found a single bottle with the least particle of precipitate. Last, but not least by any means, it being a perfectly neutral solution, it can be taken indefinitely without the least fear of injury to the patient's teeth. —*Reprinted from the American Therapist, June, 1904.*

NOTES ON A CASE OF PERIMETRITIS.

By HUKAM CHAND, C.M.S., Surgeon Delhi Hospital, Delhi, India.

I was called to see a female patient in the city on October 12th, 1904. On arrival I found her with fever, temperature 102°, tongue coated, pulse rapid, bowels costive, urine scanty and high colored, pain and tenderness over the hypogastric region as well as in both iliac fossae, vagina hot (as told by native *dhai*) but on discharge. On palpation the uterus was found hard and on inquiry it was found that the present complaint was due to abortion and exposure to cold. I diagnosed the case as perimetritis associated with ovaritis and prescribed:

(1) Calomel gr. ¼. One every three hours.

(2) Antikamnia & Heroin Tablets. One every four hours.

(3) Turpentine stupes over the seat of pain.

(4) Liquor Morphia, 15 minims at night, *if no sleep.*

Oct. 13th.—Pain less than before, had a good sleep for four hours. Continued the same treatment.

Oct. 14th.—Pain less than previous day, had good sleep without morphia.

Oct. 15th.—Pain considerably less, patient could walk with aid of stick. Good sleep. Continued same treatment but stopped turpentine stupes.

Oct. 16th.—Very slight pain remaining, patient weak, otherwise well. Stopped calomel, prescribed castor oil, oz. 1, and continued antikamnia & heroin tablets as before.

Oct. 17th.—No pain at all. Bowels moved twice. Prescribed tonic mixture. Patient getting well.

Remarks.—In my opinion the recovery of this case was due to the analgesic and antipyretic properties of antikamnia & heroin tablets. They are worth a trial in such conditions.—*Practical Medicine, March, 1905, Delhi, India.*

EVERY LITTLE BIT HELPS.

"One of the spiciest little journals that comes to the Secretary is the *American Medical Journalist.* It contains many very readable articles, and its last issue seems to be chiefly directed against the various transactions of the American Medical Association, especially against the *Journal. We rather think that there is a great deal of truth in what it has to say and advise all who wish to know both sides of the question to read it.* It is published by D. A. O'Gorman, of New Pork."—From the *Journal of the South Carolina Medical Association* (published under the direction of the Publication Committee of the South Carolina Medical Association), Charleston, S.C., Sept. 21, 1905.

PERSISTENT HEADACHE DUE TO NASAL CATARRH.

Nasal Catarrh, both acute and chronic, frequently serves as the cause of headache. The pain is generally one of persistent type and classed as congestive. Examination in these cases may show suppuration of accessory sinuses with marked nasal obstruction due to small spurs, deviated septum and general hypertrophy. As a rule these obstructions are of little import if the engorged membrane can be readily depleted and the local circulatory system restored. This can readily be accomplished by instructing the patient in the use of Glyco-Thymoline in a 25 per cent. solution (warm) by means of the K. & O. Nasal Douche. The solution should be applied at least twice daily until the nasal membrane is found to be perfectly normal. This will give prompt relief from the congestive pain and maintain the nasal membrane in a healthy condition.

The following case occurring in the practice of J. K. Cantrell, M.D., of Alton, Mo., can be cited as typical:

I suffered for twenty years from nasal catarrh and at times experienced the most agonizing neuralgic pain of a superior orbital character like all other physicians, thought but little of using any remedy than my own until I received the sample bottle of Glyco-Thymoline sent me by you. It set in my office for months until one of those neuralgic attacks came on, and after using my own remedy with little or no satisfactory results, I commenced the use of Glyco-Thymoline and was relieved in eight nours of the neuralgic pain and I am glad to say I am as free from nasal catarrh as an infant. The above disease is the only disease I have had a chance to use Glyco-Thymoline in, as I used the sample sent me in curing myself. In conclusion will heartily recommend Glyco-Thymoline to all who have nasal catarrh and will wager one hundred dollars that it will cure any case unless the disease is of syphilitic origin. I think Glyco-Thymoline should be introduced in every physician's practice in the United States.

SOME OCULAR REFLEXES.

Dr. S. W. S. Toms, in *Indian Medical Journal, Ophthalmology*, October, 1905, contends that ocular defects mostly productive of nervous disturbances are astigmatism in oblique and unsymmetrical axes, astigmatism against the rule and mixed astigmatism. Muscular imbalances are also potent influences. The author cites cases of headache, restless nights, nervous and dyspeptic symptoms cured by appropriate glasses.