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## Original Communications.

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### NEUROLOGY AND THE PREVENTION OF INSANITY IN THE POOR.\*

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MR. PRESIDENT AND FELLOWS,—In a recent article on "The Present Status of Neurology," by Dr. Joseph Collins, of New York, he states that the progress in neurology during the last twenty years has been so gratifying, that to-day the correct diagnosis of organic diseases of the nervous system is more directly dependent upon the application of rules of scientific exactitude, than in any other department of internal medicine. Despite this fact there is no denying that a remarkable stagnation in neurology has come about. This stagnation he attributes to the disappointment of our expectations that the laboratory worker, experimenter, and pathologist would contribute to the elucidation of the origin and course of nervous disease, and also to the fact that there are no signs tending to indicate that we can look to them for much help in the future. As a matter of fact, he says that the neurologist must look to himself in the interpretation of diseases of the nervous system, and no longer pin his faith to the physiologist or pathologist. In other words, the advances of neurology must, in the future, be made on clinical lines and by clinical study.

It is not my intention at present to even attempt to discuss the broad field of neurology, but rather to make a few remarks about a portion only of this field which, though of supreme importance, has been comparatively little cultivated, of which

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\*Read before Toronto Clinical Society, April, 1905.

Krafft-Ebing wrote, "It is astonishing that so little notice has hitherto been given in medical literature," and in which clinical study must form the chief reliance of the neurologist. I refer to disease in that portion of the field of neurology which on the one side is bounded by nervous health, and on the other by that boundary line after passing which it is termed insanity. This disease has been discussed both as neurasthenia and as incipient insanity. While personally, as I advocated in an earlier paper, I believe a more correct designation for it would be cerebraesthesia or that subdivision of neurasthenia in which mental symptoms predominate, the more frequent use of the name, neurasthenia, by the profession at present leads me to employ this latter term in these remarks. The importance of this branch of nervous disease is at once apparent when we consider that its treatment comprises a practical prevention of insanity, which would of itself alone be even a greater blessing to mankind than the prevention of tuberculosis. Not only is this important, for where the Government must provide for the care of the poor in both these diseases, it has only to do so for the tubercular for a limited time, while for the insane it may be necessary for twenty or more years. Further, the loss of use of the intellect of the individual to the world during the period of insanity must be considered, as well as the fact that recovery from this disease sometimes leaves a liability to recurrence, or impaired intellectual faculties, which prevent, to a greater or less degree, the resumption of business or social life to an extent previously enjoyed. That the acute, idiopathic insanities (and it is to these only I here allude, and especially to mania and melancholia) can, in the large majority of cases, be prevented by suitable treatment, when such is undertaken sufficiently early, is now recognized by all authorities; hence, the importance of the study of this branch of neurology, as I believe the cultivation of this field will yield a more abundant harvest than any which have been reaped in this branch of medicine in the past, abundant as they undoubtedly have been. Further, the clinical study of these cases, which need not depend on the laboratory worker or the pathologist to the same extent as heretofore, will give an impetus to neurology which will produce even greater results than have been attained in the past.

One great difficulty has always been the lack of realization of the serious nature of these cases. Kraepelin, in his last work, says, "that even in the mildest forms of insanity, (of which this disease is but the initial stage) the suffering is greater than that of any other class of disease with which the physician has to deal." How often in every-day practice is a

patient, suffering from neurasthenia who complains of psychic pain, told, "Oh, it's nothing, only nerves," etc., etc. The reality of the existence of these pains was strongly confirmed in my mind by an incident which arose in the following manner: A neurasthenic patient of mine was attacked with severe pains in his left shoulder during my absence in England some years ago. He consulted a surgeon, who carefully examined the shoulder without finding any evidence of local disease, and told the patient he found no cause for his pain, that it would soon be better. This improvement, however, did not take place, and the pain continued severe until my return. Some simple prescription was given him and the pain soon ceased. A short time afterwards he had the misfortune to fall and fracture his femur, from which, while it was being put up, he evidently suffered intensely. When the operation was over I asked him which had caused him more suffering, the fracture or the pain he had had in his left shoulder. He immediately replied the pain in the shoulder, and I knew his character too well to doubt his statement for an instant.

Why are these symptoms of neurasthenia often treated so lightly? I believe it is due to the fact that a hiatus in medical education has always existed in the domain of neurology under consideration. The student has excellent works on insanity written on this disease after the boundary line has been passed, but previous to this stage he has but little. A single chapter on neurasthenia in the recent text-books of medicine, written with about as much warmth as neurasthenic patients are welcomed to the wards of a general hospital, is probably all the average student reads about it. As for clinical instruction this is scanty if not altogether absent. What then must be the logical result? He goes into general practice where these troubles are common without any definite knowledge of this form of functional nervous disease, gropes about in the dark for a variable number of years, and finally grows to look upon them as whimsical, chimerical, etc., gives up their study in utter disappointment, or learns often by sad experience, both to himself and his patient, how serious some of these troubles are. Having devoted my entire attention to neurology for nearly fifteen years, a branch of medicine of which these cases of neurasthenia form an important quota, and having had exceptional opportunities during the past twelve years in a private hospital, with the aid of a large staff of nurses, to study these patients, to observe the various phases of their disease from day to day, to see, in some it is true, a gradual intensity of their symptoms develop until the boundary line was passed and they were transferred to the care of an alienist, or in, I am pleased to say, a much greater number, to observe a.

gradual abatement of their symptoms and a return to a life of usefulness, has not only confirmed the belief I had already formed of their gravity, but also led me to believe that by their early treatment, insanity could be prevented, both of which conclusions I had the honor of laying before the Canadian Medical Association in 1898. If I add that such patients have frequently told me that they would prefer to have either pneumonia or typhoid fever to the disease from which they were suffering, some idea of the serious nature of these troubles to such patients will readily be realized.

Before proceeding further I would like to say a few words about insanity, since it is on the field above mentioned that the neurologist and the alienist most frequently meet in the practice of their respective specialties. Although insanity is one of the oldest diseases of which we have any record, how little has been done to alleviate the suffering of the insane, until the last fifty years. If any one interested in the history of insanity were to visit the Asylum of Sainte Anne in Paris, he would there see illustrations of the methods and contrivances with which the insane were treated in the early part of the eighteenth century. The cruelty of these methods and the torture of these contrivances, reminds one of nothing so strongly as of the Spanish Inquisition. When Pinel (one of the brightest minds of his day) cast off the iron fetters from the insane at the Salpêtrière a little more than one hundred years ago, it was hailed as a great advance in the treatment of the insane. This wise and humane act is one of which the whole medical profession may feel justly proud, especially as it was owing to this action that all mechanical restraint gradually disappeared from asylums. When, however, Tuke put into practice the theory that lunacy is a bodily disease, he established a firm basis for the rational treatment of the insane, on which has been built during the last century, all the best remedial measures for the relief and cure of the most serious affliction that can come to man, and thus earned the everlasting gratitude of countless ages yet unborn. Barbarous as seems to us the so-called treatment of the insane in the eighteenth century, there is still one grave defect which exists to-day, and which, on account of its injustice and cruelty, almost makes one wonder if one is not living in the times before Pinel and not in this century of ours. I refer to the fact, that a poor man, however blameless his life, may be arrested, thrown into a common jail with the greatest criminals of the country, and taken before a police magistrate like a common felon. Why? Simply because he has the misfortune to be suffering from a disease of the brain. Had it been a disease of the liver, a much less important organ, an

ambulance would have been sent for him, and he at once would have been given a bed in one of the public hospitals. When one considers that in 1854 (only fifty years ago) there were as many insane poor in chains, in the State of New York, as when Pinel removed the iron fetters in 1792, can one wonder that distrust and suspicion should still exist in the minds of the masses? In the light of these facts, is it astonishing that the laity, without any adequate knowledge of the modern treatment of insanity, should be prejudiced against asylums, and defer asylum treatment for a relative, until the last extremity is reached, when often, alas, it is too late?

But it is to the better education of the medical student, and as a necessary result, that of the future general practitioner, that I would like to direct your attention. As is well known by all examiners in medicine, the graduating student has a most imperfect knowledge of neurasthenia and insanity, a defect which is the more striking when compared to his present knowledge of disease of any other organ than the brain; as, for example, that of the heart. Why should this be so? The medical superintendents of asylums have, for many years, done all in their power to disseminate a knowledge of insanity. One reason is the belief on the part of the student, that there is a chasm of greater or less dimensions between the general practice of medicine and the treatment of insanity, and the impression that the latter must always be treated by an alienist and in an asylum; hence, no practical benefit will be derived from its study. Another is that there is a lack of *realization* on the part of the student that insanity is "brain disease with mental symptoms." Again, the situation of asylums is so frequently a long distance from the scene of the student's daily work, and the immense number of patients and the intricate classification of insanity tend rather, during his occasional visits to the asylum, to confuse his ideas and leave him with an ill-defined knowledge of the subject. But how about his instruction in those functional nervous troubles which often, for a long period, precede insanity, of which Krafft-Ebing (whose work as a neurologist lent a great aid to his success as an alienist), says in his last work, "Seldom does insanity come like a thunderbolt from a clear sky, much oftener its development requires months and even years"? Naturally the student has no such instruction in the asylum since he can see there only cases in which the boundary line of insanity has been passed. As I have already said, his instruction about them in the general hospitals is at best but scanty, owing to the lack of clinical subjects. From what has been said I hope I have made clear that the first step in the prevention of insanity must be taken by providing better facilities for clinical instruction in functional nervous diseases,

for the medical student—the future general practitioner—*under whose care such cases must inevitably first come.*

If lack of education is really the cause, the remedy at once becomes apparent, viz., to increase the facilities for the instruction and study of these diseases. How is this to be accomplished? For some years past three suggestions have been before the medical world: (1) To convert our asylums into hospitals in the strict sense of the word, admitting cases of neurasthenia without certificate. (2) To establish psychopathic hospitals as separate institutions, and (3) to establish in connection with the general hospitals one or more wards, or a separate pavilion, in which these patients could be received. In regard to the first, much as I should like to see in every asylum a well equipped hospital for acute cases, and, firmly as I believe that the worthy efforts of alienists will certainly be rewarded in time, I do not think this solution offers most advantages for the initial step. How would such a hospital be filled with such cases as we are discussing? By voluntary patients, without certification? One can at once see how inadequate must be the supply, if only on account of the prejudice which now exists in regard to asylums. By cases from the general profession? But how is the general profession to recognize the urgent need of treatment in these cases without further opportunity for observation than has been given it in the past? Or, granted that these hospitals were filled with a sufficient number of these neurasthenic patients, would not the distance at which asylums are so often placed form a tremendous barrier to the average student, whose time is already so fully occupied? Moreover, that this distance has to be travelled to see only one class of disease is also an important consideration.

In regard to the establishment of psychopathic hospitals I do not think the suggestion is at present the most useful or practicable one for this country, as the initial expense alone, would delay their construction for an indefinite number of years.

It is rather to the third suggestion above mentioned that I think we must turn for an immediate and practical solution of the difficulty, a solution which I advocated at the annual meeting of the Ontario Medical Association in June last, viz., the establishment of wards or a separate pavilion in connection with general hospitals, and especially at first, in connection with those general hospitals where clinical instruction is constantly given. Has this plan been tried and with what success? To any who have not yet seen the report of the last annual meeting of the Neurological Society of Great Britain and Ireland, with the address by its president, Sir John Batty Tuke, M.P. which is devoted in part to this subject, I may say

it will be found most interesting. He cites the experience of Glasgow, which was the first city in the United Kingdom to carry such a scheme into effect. In 1890 one parish, the Barony, instituted what were termed observation wards for the reception of so-called "nervous cases." Notwithstanding that the general arrangements were not suitable from a hospital point of view, the results of the experiment were generally satisfactory. Encouraged by these results a second stage of the experiment took place in 1899 on a much larger scale, in wards set apart for the purpose in one of the city hospitals. Satisfied further with these results, in June, 1904, wards were erected for the special purpose, a pavilion attached to one of the general hospitals. Time forbids further details, in regard to the successful results, which have attended this experiment to provide early hospital treatment for the poor suffering from this disease. I would like, however, to quote what he says about the value of these wards for clinical instruction: "Clinical instruction in an asylum was all very well, but it was not worth argument, to show the infinitely greater advantage that would accrue to all students, were such wards open to them." This institution in Glasgow is the only one of its kind in Great Britain. In Germany much more has been accomplished. To each of the twenty universities a psychiatric clinic has been attached, either in buildings, independent, in the neighborhood of a general hospital, or in wards specially devoted to the purpose. That of Heidelberg was established in 1878. All alleged to be mentally unsound passed through these hospitals; if the nature of the case demanded certification it was passed on to the asylum; the rest consisting of early or mild cases of insanity, neurasthenia, the subjects of delirium due to fever, etc. —in fact, all such cases demanding observation and treatment — were retained without certification and treated to a termination without being reported to the State Office. These clinics were on exactly the same footing as the other clinics, medical and surgical, existing in all German universities. Similar provision has been made in the United States, especially at Bellevue Hospital in New York, and in Philadelphia; while France, Austria, Italy and Switzerland have likewise demonstrated the efficacy of this procedure.

To establish such a ward in connection with a general hospital would have the important advantage that, as the financial outlay need not be large, it could the sooner be put into active operation, a very material consideration. With one or more of such wards in operation the first object aimed at, viz., the alleviation of suffering in the poor by proper hospital treatment for their disease, would be attained. In addition to this, there would result at least the following:



1. Better clinical instruction to the medical student. Here the student could be shown these cases in his daily round of work, and be able to study these diseases of the brain just as he studies, in a neighboring ward, diseases of the heart or of the lungs. He would learn to give the same attention to disease in this one organ, as he now gives to disease in all the other organs, and the importance of the study would be brought home to him in a way which is at present impossible. He would realize the importance of active treatment in these cases and his responsibility in allowing these cases to pass over the boundary line of insanity without advising adequate treatment. The study of these cases in their early stages would also enable him to recognize such conditions in private practice, and to take such steps as may save a mind from destruction, a result more desirable even than saving the body.

2. A better knowledge of these diseases would result in the whole profession recognizing the necessity, for example, of hospitalization of asylums, and instead of the scanty number of specialists who are now endeavoring to bring about this good work, there would be a solid phalanx formed by the profession to the requests of which the government would be obliged to accede without delay.

3. To the nursing staff of a general hospital, instruction in such wards would be a great boon, since, frequent as these cases are in private practice, but little opportunity to learn the art of nursing them is afforded in a general hospital. As Church, in his recent work on Nervous Diseases, says in regard to the nursing of neurasthenia, "Any amount of general hospital training does not make a good nurse for this class of patients," hence the importance of farther experience in nursing this form of disease.

4. By admitting patients into the wards of a general hospital on the lines suggested above, in Germany, any acute case of alleged insanity would at once be admitted without a certificate, on precisely the same conditions as though the patient were suffering from any other disease than that of the brain, and by this means the cruelty and injustice of taking these patients to a jail would be abolished. Under these conditions recourse to early treatment would be sought, since the prejudice against asylum treatment for a relative would be removed, and much better results would necessarily follow. The stigma, in the minds of the laity, of having been treated in an asylum would also be obviated. Further, the treatment of these patients in a general hospital, by the same methods as all other patients are treated (due allowance being made for the form of their disease), would gradually lead to a more rational view of insanity in the minds

of the masses, and thus gradually overcome the prejudice against asylums.

5. A large proportion of suicides would be prevented since there is no doubt that many a sufferer from neurasthenia, who has without avail long sought aid to relieve him of his disease, has ultimately given up in despair, and some additional grief which in health would only have caused temporary depression, has under the circumstances turned the scale, and another suicide is added to the appalling list of those disasters published daily in the newspapers.

From an economic point of view the prevention of insanity in the poor merits the most careful attention of the State. Statistics at present are necessarily scanty. The results of the experiment in Glasgow were as follows: Between 1899 and June, 1904, 1,345 persons were admitted, of whom 1,052 were discharged recovered or relieved. Between June and December of last year 260 persons were admitted, of whom 155 were discharged recovered or relieved. As a result of twelve years' experience in a private hospital for nervous diseases, provided with all necessary facilities for treatment, but to which cases of insanity are not admitted, the proportion of recoveries, in those patients whose disease would, in all probability, without treatment have passed over the boundary line of insanity, has been about 80 per cent. Granted, however, that insanity was prevented in only 50 per cent. of the patients admitted into such wards as I have suggested in a general hospital, what an excellent investment the cost of such wards would be to the Government. There is at present in one of our asylums, at least one man, the cost of whose maintenance has already been paid by the Government for more than fifty years. Had insanity been prevented in this single instance, and to the money thus expended by the Government for his maintenance, be added the value of his services as a wage-earner during this long period, the amount thus saved from this one patient alone, would more than suffice to build and properly equip a pavilion in connection with one general hospital. I shall not add further details, but I hope sufficient has been said to direct attention to the urgent need for the early treatment of neurasthenia to prevent insanity in the poor, by means of well-equipped wards in a general hospital, the accomplishment of which will add another laurel to the profession which has ever made the relief of the suffering of the poor its first duty.

## TOXEMIA OF PREGNANCY.\*

BY KENNEDY C. McILWRAITH,

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The subject of eclampsia has been so often dealt with, and there is so little that is new to say about it, that I feel as though some apology were due for introducing the subject.

Sir William Gowers, in writing on aphasia many years ago, used words which apply with equal force to eclampsia to-day. He says: "The subject abounds in difficulty, arising partly from its complexity and partly from the uncertainty due to a deficiency of facts, and the obscurity produced by a redundancy of theory." A complex subject, deficiency of facts, redundancy of theory—all this may be said of eclampsia. I have notes drawn from an observation of twenty-three cases to lay before the Society, and the hope of adding to the clinical knowledge of the question forms my apology. I shall not now give complete statistics of these cases, for the time at my disposal is too short, but shall refer to certain features which seemed of special interest. Convulsions occurred in only nineteen of them, and I have included the other four in order to cover that very important part of the subject—prophylaxis.

It is, I think, a noteworthy fact that in every case *some* premonitory symptoms occurred, and the only deaths I have to record occurred after these warnings had been neglected. The premonitory symptoms recorded in my notes are as follows: Headache, edema, vertigo, drowsiness, ringing in the ears, albuminuria, visual defects, high tension pulse, scanty urine, severe epigastric pain, jaundice, hemorrhage from the gums. Of these the most frequently noted are: Edema, 13 cases; headache, 12 cases; albuminuria, 9 cases; high tension pulse 5 cases.

*Edema.*—I think edema is given a somewhat fictitious prominence in comparison with the other symptoms. It always attracts the patient's attention, and is therefore nearly always recorded when present. Furthermore, it occurs very frequently in primiparæ as a pressure symptom, especially at the time the head first engages in the brim. Produced in this way it does not seem to point specially to danger of eclampsia. Finally, some of those cases in which it was the most prominent symptom were not otherwise severe. One woman, for example, who had general anasarca, and an edema of the vulva so great that the labia had to be punctured before the child could be delivered, did not have convulsions. Still the presence of edema should always put us on our guard.

*Headache.*—Persistent and severe headache, either frontal or

\*Read at a meeting of the Toronto Clinical Society.

vertical, is a very important sign. In at least two of my cases its incidence preceded the convulsions by only an hour or two. It would seem to be an urgent indication for treatment.

*Albuminuria.*—In speaking of this symptom, the necessary imperfections of this record must be borne in mind. The majority of the women were hospital patients, brought in in convulsions, the urine not having been examined previously. In only one case in which the urine was examined shortly before convulsions set in was it absent. It is probably a more frequent premonitory symptom than my record indicates, and its presence should always put us on our guard.

*High Tension Pulse.*—Great difficulty in obliterating the pulse at the wrist is a most important warning. In recording the earlier cases of this series I was not sufficiently alive to the importance of this symptom, or it might have been more frequently noted.

Latterly I have never found that a patient who has had one or more convulsions is out of danger while this condition exists. The tension is nearly always low immediately after a convulsion; rises again and reaches a maximum just before another convulsion. The disappearance of this symptom is usually coincident with the disappearance of all other unfavorable symptoms. This, however, is not always true when the tension is lowered by the administration of such remedies as nitroglycerine, or veratrum viride; and, finally, in the most severe cases of all, the pulse was rapid and of low tension from the time the patient was first seen. This may possibly be the ultimate effect of the same poison, which at first produces the high tension.

*Visual Defects.*—Only one of my patients suffered previous to confinement, and she did not have convulsions. Her history is that she suffered from "blurring of vision" in the right eye, headache, albuminuria and edema from about the third month. The blurring and albuminuria improved under eliminative treatment, but did not entirely disappear until about the third month after delivery.

*Severe Epigastric Pain.*—This occurred in one patient seen in consultation in a private ward at the Burnside, November 27th, 1902, quartipara. Her history was that up to about 2.30 p.m. she was quite well. Telephoned to her husband at that hour on a matter of business. At about 3 p.m. she was seized with a severe pain in the abdomen. At 7 p.m. she had a convulsion. Before 10.30 p.m. she had had two more. She had a fourth on entering the hospital at 10.40 p.m., at which hour I saw her. She was then comatose, cornea insensitive, pupils contracted to pin-point size. The pulse was feeble and rapid; labor pains were present, and the os larger than a silver dollar. The dilatation was completed under chloroform and a dead child delivered.

She never rallied in the slightest degree, and died at 3 a.m. The case was remarkable for the extreme coma, feeble pulse and fatal result after only four convulsions. It has been stated that cases in which epigastric pain occur are usually severe. In this case I suspected cerebral hemorrhage, but could not get an autopsy.

I may add that when first seen by her physician she said she had noticed edema of the legs and scanty urine for some days.

*Jaundice*—This occurred ante-partum twice, and post-partum twice. It is of interest in connection with the hepatic theory of origin of the disease.

Having thus briefly discussed the premonitory symptoms, I pass on to consider their treatment. Two lines of treatment were followed: Elimination by means of calomel and mag. sulph. and normal salines; and the administration of morphia or chloral when a convulsion seemed imminent. Glonoin was given to lower pulse tension.

One patient was admitted to the Burnside at about the sixth month of pregnancy. Her symptoms were headache, vomiting, bleeding from the gums, sleeplessness, scanty, bloody, albuminous urine, and high tension pulse. She was purged with calomel and mag. sulph. and given normal saline per rectum, one pint every four hours. Morphia was given for the headache and sleeplessness. Under this treatment she improved wonderfully. The urine increased in quantity, and the blood disappeared from it. All her other symptoms ameliorated. Glonoin was given to reduce the pulse tension. She improved so much that she refused to remain in bed, and then insisted upon going home, when the treatment was not continued. She miscarried; a convulsion occurred; she developed a phlebitis, which involved both arms. In this condition she returned to the Toronto General Hospital. She finally recovered. The four patients in whom no convulsions occurred were similarly treated, and that is possibly the reason that they escaped.

The eliminative treatment is calomel in  $\frac{1}{2}$  grain doses every half hour till three grains are given; then mag. sulph. one ounce of the saturated solution every hour till four are given, or until the bowels move freely. Treatment by saline purgation can be kept up for weeks, *e.g.*, Case 4. This girl had eight convulsions, and was then purged more or less for fifty-three days, when labor came on, and she was delivered of a healthy child.

*Causes which Excite Convulsions.*—Any sort of external stimulation may excite a convulsion in a patient who is in the eclamptic state.

In Case 3 (post-partum) a convulsion was excited by pump-

ing the breast. She was not finally cured until she was isolated and kept absolutely quiet.

In Case 11 a convulsion was precipitated by administration of a dose of medicine.

In Case 23 it was brought on by the presence of students at a labor in a neighboring room.

And finally, it is quite the rule for a convulsion to come on while the patient is being moved from the ambulance to the ward.

#### TREATMENT.

Believing, as I do, that the pathological condition is one of toxemia, I take it that elimination is the *curative* treatment, other measures being directed to the control of special symptoms. The treatment that I have laid down for my hospital cases is as follows :

1. *If the Patient be Conscious.*—Give calomel grs. 5 at once, washed down with saturated solution of mag. sulph. two ounces. It takes too long to give divided doses when a convulsion occurs. Then anesthetise the patient and give an injection of sterile normal saline, one pint beneath each breast, and at the same time let the nurse give an enema, consisting of mag. sulph. saturated solution, one ounce ; glycerine, two ounces ; water, three ounces ; as high up in the bowel as possible. Then as the patient comes out of the anesthetic, give a hypodermic of morph. sulph. grs.  $\frac{1}{2}$ . Then give alternately chloral grs. 30 per rectum, and morph. sulph. grs.  $\frac{1}{4}$  hypodermically at two-hour intervals, as seem to be required, for convulsions or threatening symptoms. Not more than three grains of morphia should be given in twenty-four hours.

2. *If the Patient be Unconscious.*—Same, except that the medicines cannot be given by the mouth. This is as far as the treatment can be systematized, but varying conditions may lead one to vary the treatment in each case.

It has been noted on several occasions that the convulsions ceased and the other symptoms disappeared before the bowels started to move. This, I take it, is due to serum, and with it toxin, having been withdrawn from the general circulation into the bowel, and remaining there owing to failure of peristalsis. The glycerine enema usually excites peristalsis.

In addition to morphine and chloral, *veratrum viride* proved valuable. In one case of post-partum convulsions which would not yield to other measures, a hypodermic of 20 minims of the fluid extract was immediately effectual, and the patient recovered without further convulsions. I would not use this remedy at all except where the pulse was full and of high tension, and

I do not think I would use this heroic dose again. Injections of 5 to 10 minims t. i. d. is a better method.

In a recent number of the *British Medical Journal*, Dr. Nicholson, of Edinburgh, strongly recommends thyroid extract as a means of combating high pulse tension. I shall give this remedy a trial should occasion again arise.

If all these methods fail, delivery must be accomplished, and if labor be present and the cervix taken up, it should *always* be proceeded with.

In Case 23 labor was not present and the cervix was not taken up, yet I was able to dilate the cervix manually (Harris's method) and deliver a living seven-months' child. The mother wandered mentally for about a week, and had two or three post-partum convulsions, but ten days after delivery she was all right and able to sit up.

In all cases we should remember that our patient may do well enough for a day or two without food, but water is absolutely necessary. This should be given by the bowel while she is unconscious, and by the mouth—milk and water—when she can drink.

A word may be said about "controlling the convulsions with chloroform." We must remember that a convulsion seldom lasts longer than five minutes. The first stage of it is tonic, and during that stage what the patient urgently needs is oxygen—a remedy strongly recommended by Stroganoff. To this stage clonic convulsions and deep spasmodic respirations succeed. In this stage the administration of chloroform deprives the patient to certain extent of much-needed oxygen, and she is moreover very apt to get too much chloroform. I have seen two or three ineffectual attempts to "check" convulsions in this way. If a patient is having a series of convulsions, chloroform may be given to break the series while eliminative measures are being taken, but this should be its sole function. The prolonged administration of it is exceedingly dangerous.

#### CONVALESCENCE.

After convulsions had ceased, fever developed in five cases, mania in one, wandering intellect and delusions in one, and hemiplegia in one.

With continued elimination and attention to the other points of treatment I have mentioned, the first two recovered completely.

Hemiplegia developed in a patient whose convulsions came on after delivery. The convulsions ceased on the third day after delivery, and the hemiplegia developed on the fifth. It involved the face, arm and leg of the right side. Speech was also affected. This was on July 2nd last. She has now recov-

ered the use of her tongue completely, and of her arm and leg pretty well.

My experience does not bear out the often repeated statement that convulsions occurring post-partum are less serious than those occurring during pregnancy and labor. Two of the worst cases in my series were post-partum cases.

*Results.*—There were two deaths. One history I have already given. In the other case the woman's physician was out of town, and time was lost trying to get another. She began to have convulsions about 7 a.m., and, according to her friends, kept on having them all morning, nothing being done. At 2 p.m. she was brought to the Burnside in labor, profoundly unconscious, pulse rapid and feeble. She was quickly delivered under full anesthesia, but never recovered consciousness, and died at 11 p.m.

*Prognosis.*—Profound coma, rapid feeble pulse, and pulse of abnormally high tension are of bad significance. When the circulatory balance is well maintained and consciousness is recovered in the intervals of the convulsions, recovery may be looked for when free elimination can be established, excepting always the danger of hemiplegia. This latter danger should always be mentioned in giving a prognosis. My experience would seem to indicate that profound coma is of more serious import than recurrence of convulsions when periods of consciousness intervene.

In conclusion, let me enter a plea for the better care of pregnant women. In my private practice I explain to every woman who engages me to attend her what my fee will be, and that this will cover all ordinary consultations on the subject of her pregnancy. I encourage her to come to me at stated intervals to "report progress" and have her urine examined. This is in part the plan recommended by Cooke, of New York, and I think that by its adoption I have prevented some cases of eclampsia.

Most of the cases on which this paper is based were from Professor Wright's clinic at the Burnside, where the treatment by morphia and elimination has been followed for some years. The rest were seen at St. Michael's Hospital and in consultation practice.

Since the above paper was written I have seen several eclamptic patients. I have tried thyroid extract in doses of from 15 to 20 grains daily, and think that it has a vaso-dilating effect, but have come to no definite conclusion as to its usefulness. Two more of the patients had no albuminuria previous to the onset of convulsions. One post-partum patient died in a state of profound coma after two or three convulsions. Five minims of croton oil failed to move the bowels. Her temperature just before death was 108.



## HOME TREATMENT OF PULMONARY TUBERCULOSIS—CASES IN PRACTICE.

By EDWARD PLAYTER, M.D., TORONTO.

### No. II.

Having in the February number of the PRACTITIONER given in sufficient detail the general principles of treatment of this disease, I now need only refer to two or three points then overlooked or not fully or clearly given.

It may be well, too, to repeat that the greatest care must be exercised in the commencement of chest expansion by lung exercises and increase of respiratory capacity, without which patients, in the second or third stage especially, cannot recover; more oxygen than they have been habitually taking in being indispensable to recovery. And never, in one single instance, in my experience, has any bad effects, but on the contrary, incalculable, absolutely essential good, resulted therefrom. It is obviously a much safer practice than that of sending patients to mountain elevations. In a very few cases I have thought it safest to restrict action of the diseased lung by some local strapping of the chest wall.

Cough, whether too irritating or with too copious expectoration, or tight with tenacity, may always be controlled, never, of course, to be stopped, by simple inhalents—menthol, eucalyptus, tr. benzoin co., etc., and with the simplest inhaler—an open-mouthed bottle with two small glass tubes through the cork, one into the liquid. Care must be exercised at first, that the patient do not inhale too strongly and draw the liquid into the mouth.

Direct laryngo-intertracheal injections of such essential oils, with ol. cinnamon, creosote, iodoform, etc., according to the indications, in olive oil, are sometimes of decided advantage.

Theoretically, ozonized air should be a most valuable means of introducing oxygen into the system, and from the published experience of Dr. Arthur Ransome, I had expected much from inhalation of it. With the best of apparatus for production and inhalation, I have been rather disappointed, though in some cases in my experience it has been beneficial.

The morning tonic bath—a very valuable remedy—needs special mention. Whether after the morning warm wash-off of the night inunction or not, it promotes healthy, vigorous action of the skin, aids respiration and prevents “taking cold.” It must not be too cool to prevent good after-reaction. Cold or temperature here being entirely relative, the patient's feelings

must guide. Beginning with water comfortably coolish, the temperature may be lowered half a degree daily (Ziemssen) a quick rub, with quick drying and friction; in advanced cases, help being needed.

In no disease is it more important that the patient carry out strictly every detail in the treatment laid down by the physician.

The body temperature, I may add, rarely guides me, excepting sometimes in diagnosing early or pretubercular cases. I find no typical cases, and rarely use the thermometer, the pulse and the many other general conditions having proven safer guides in my practice.

In conclusion on general treatment—in a sentence—the supply of oxygen must be increased by improving the respiratory condition of the fairly healthy lung tissue left, while every function of the body must be put into as good working condition as possible—of the skin, for example, assisting as it may in nutrition as well as in respiration, as in the case of Miss M— (Case 1), by inunctions of cod liver oil; and so with all the other functions—nutrient, secretory and excretory. The amount of exercise must be judiciously regulated according to the condition of the circulation. In a few words, advantage must be taken of every possible means for restoring the natural powers that are left to more natural, vigorous action, placing the patient in the best possible condition for recovery.

Hence a most careful, prolonged examination, and after-study of the case before laying down the course of treatment. No two patients can be successfully treated alike. Some modification is invariably indicated; as, for example, in some cases, so small a thing as a little excess of, or on the other hand, too little aloin to help regulate the biliary and intestinal functions, may give rise to a marked effect, good or bad. So it is with almost every remedy.

In a very few cases, the general functions are not yet much disturbed and little is needed but more oxygen with, perhaps, rest and some counter irritation, or “alterative,” as iodine inunctions. But the great majority of patients need much help; in which the patient must be taught to assist the physician, and in a large measure, if recovery is to be brought about.

Finally, no time should be lost before commencing treatment, not a day in at all advanced tuberculous cases. Every day so lost lessens the chances of the patient's recovery.

CASE III.—Rev. E. A. W. D—, *æt.* about 30, was, six or seven years ago, stationed in connection with a Methodist church near Lakefield, County of Peterborough. During the year 1889 his health failed, and in the summer and autumn failed rapidly, with copious pulmonary hemorrhages. In the

autumn he tried to get into the Gravenhurst Sanitarium, but the medical examiner in Toronto refused to "pass" him for admission, as he told me, the disease having advanced too far. He then resided with friends in a Toronto suburb for many weeks, under the treatment of two or three physicians, in a large double parlor, mostly in bed, too weak to go about.

He came under my care on the first of February, 1890, greatly emaciated and prostrated from weakness, not able to walk up one flight of stairs; much shortness of breath, even in quiet conversation; pulse, average frequency for weeks, 115 to 120; respirations, 33; had for weeks vomited most of his food; had been taking five or six raw eggs a day for two or three successive days, then unable to take but very little food of any sort for several days, because of persistent vomiting; bowels very irregular; no characteristic diarrhea; much cough and expectoration; hemorrhages frequent now, of only a few spoonfuls. The left lung was a tuberculous mass; hardly any movement of the chest wall on this side; no respiratory murmur, universal dullness, except semi-dullness, where several cavities had been formed. The right lung, except at apex, was not much amiss.

Treatment: Prolonged rest in bed, between two open windows when indoors; when weather permitted, and later, during spring and summer, out on balcony or on the grass under canvas; diet of beef, milk, cream, soon one egg or more a day. He had no vomiting whatever while under my care, nor diarrhea (though for a long time the eating of two or three strawberries even would cause uneasiness and relaxed bowels); took only malted milk for first two or three days, thus allowing the stomach an almost complete rest; then, allowed, gradually, the usual nutritious diet, simple remedies being given to restore more healthy general functional action.

In a few days, respiratory exercises (simply deep breathing) were carefully commenced and persistently continued, without the slightest increase of bleedings, which, on the other hand, gradually abated as the lung tissue became toned up by the cool, fresh oxygen, and in three or four months entirely ceased. Unguent. iod. co. was rubbed freely into the skin of the diseased side, from sternum to spine, every night throughout the whole course of treatment, followed by the warm morning wash and the cool tonic bath and rub. The cough was always easily controlled by soothing, expectorant, or astringent inhalents, according to its nature and the indications, with the ordinary simple inhaler. Inhalations of ozonized air were tried from time to time, but in this case seemed to irritate, both locally and generally.

At the end of eight or nine months, Mr. D——, with a strong

will, adhering strictly to every detail of treatment, was a pretty well man. A friend then who had not seen him for months, seeing him walking, and talking with him, remarked: "There doesn't seem to be anything wrong with you now"; nor did there. After a few months spent in Ontario county he went to his parents in Newfoundland.

He is now, from reports, practically as well as ever, to say the least. In June of 1904, a friend of his said, "He was quite able to preach again." This, in accordance with my advice, chiefly because of the foul air of churches, he has not done, but has been engaged mostly in literary work, outdoors, in camp.

CASE IV., WITH A WARNING.—Miss M. E——, of Oshawa, æt. 27, came under my care in October, 1891. Had been failing in health during many months; tried to get into the Gravenhurst Sanitarium, but the medical examiner in Toronto considered her disease too far advanced to be admitted into that institution, so she reported.

She was a good deal emaciated and weak; had considerable cough, with shortness of breath; respirations, 30 per minute; pulse for a long time constantly over 100, and much constricted respiratory capacity. She was not, however, so bad in these respects—not so prostrated—as in the case of Miss M——, reported in the February number of the PRACTITIONER.

The left lung was extensively diseased, more so than the general conditions would indicate; no natural respiratory murmur in any part, moist, persistent rales, partial or complete dullness, clavicular region retracted with vocal fremitus; well-defined cavity of considerable size in middle lobe; no hemorrhages; right lung in fairly good condition; respiratory murmur, general, though exaggerated, especially in upper lobe; some rales, no dullness.

The treatment: Lung exercises, very gentle at first, for increase of the respiratory capacity, getting more oxygen into the blood, to utilize the fair amount of food she was yet able to consume, *i.e.*, more oxygen, without which, as I have said, patients in the later stages cannot recover. She inhaled ozonized air, with its greater measure of oxygen, from fifteen to twenty minutes, three times a day, with apparent benefit; diet carefully adapted, from time to time, at first, from day to day, to the digestive and assimilative powers; including the usual essentials—beef, eggs, milk and cream, with sanguis boum; very little exercise; general inunctions of cod liver oil and creosote at bed-time, for some weeks, then strong iodine ointment freely over chest, front and back, and the morning wash and tonic bath. During January and February I gave daily laryngo-tracheal injections of ol. eucalypt. with creosote in olive-oil, with an ordinary silver catheter, the patient leaning a little.

toward the left; this, with the special view of improving the condition of the cavity. During the first seven or eight weeks I strapped the central ribs of the diseased side to prevent too much distension of the large cavity by the deep inspirations.

Miss E— went home the latter end of May, not cured, but a vastly improved woman, taking with her a supply of sanguis boum, and later sending for more. From reports she continued to improve in every respect satisfactorily during the following year, and appeared to be quite restored to health. In the spring of 1893 she worked a great deal at gardening, it appears as vigorously as ever she worked at anything. In the evening, after one full day's work, she attended an entertainment, going home about eleven o'clock, without feeling anything amiss or even tired. Toward morning she awakened her mother, who found her bleeding alarmingly from the lungs, from which she died before the dawn.

Contrary to my special instructions to all such patients, she had overtaxed her physical powers, strained the yet tender lung tissue. I enjoin all such patients not to consider themselves well, however they may feel, for at least two years after a good start on the road to recovery.

Much use of the upper extremities promotes a greater flow of blood to the lungs, and hence increases the risk of hemorrhage.

One of the worst cases of this I have known was that of one D. McK—, who came direct from British Columbia to consult me. Years before, residing in Ottawa, apparently in good health, he had indulged a long time in the familiar exercise of playing fisticuffs with a loosely suspended bag filled with bran. A most profuse hemorrhage soon followed, tuberculosis developed, and he went west with the vain hope of thereby receiving benefit.

Under my care is now a case in which slight hemoptosis comes on if the patient engages in work which brings much into use the upper extremities.

# Clinical Notes.

## A CASE OF FACIAL ERYSIPELAS COMPLICATED WITH LABOR: TREATMENT WITH ANTISTREPTOCOCCIC SERUM. RECOVERY.

BY A. R. HANKS, M. D., BLENHEIM, ONTARIO.

The case I herewith report has been of such intense interest to me that I publish it with the hope that my experience will encourage some brother practitioner in the hour of dire necessity, when he feels the battle is against him.

### CLINICAL HISTORY.

Mrs. W. H. E., aged 28 years, multipara, eight months pregnant, on the evening of December 24, presented a well-marked erysipelas of the nose and left side of the face, the left eye being swollen nearly shut, and the rash extending from the alæ of the nose, on the left side, over the left face nearly to the ear, and across the foot of the nose beneath the right eye. Blebs appeared on the left side of the nose and eyelid. The patient stated that she had not felt well for some months and complained of aphthous sore mouth. She had had chilly sensations for the past three days, alternating with fever, and a feeling of fulness, and burning in the face, at the seat of the fiery rash, which was very tender to touch. Headache, pain in the back and limbs, coated tongue, a temperature of 102.5° and a pulse rate of 120 were noted.

The next day both eyes were swollen completely shut so that the patient could not see at all. The disease was extending up the forehead, its margin being marked by a distinct ridge which advanced as the eruption spread. It also extended over the right side of the face which possessed a brawny feel. The tongue became dry and brown in the middle, and the patient was very delirious, passing urine frequently, though scantily, but it contained no albumen. The pulse-rate was 120, and the temperature 104°.

December 26. The disease had extended up the forehead and to the right ear, but did not involve the ear. The symptoms were in no way ameliorated, the temperature being 105°. During the night the woman was taken in labor, the baby being born about 7 a.m. on the 27th. At that time her temperature was 103½°, and the pulse-rate was 110.

December 27. The erysipelas had extended to and beyond the roots of the hair on the forehead, and covered the whole face, from ear to ear, and above the lips, which were extensively

involved. The swelling of the parts first involved was now showing signs of subsiding, though extending at the margins. The tongue was still very dry and brown, the bowels were loose and the patient was very delirious.

December 29. The patient can open her left eye a little. The erysipelas had extended to the left of the mouth, and the lower lip had become involved. The right ear and the right side of the head were involved and much swollen. The tongue was still dry and brown, though the delirium was less.

December 30. The right ear was enormously swollen, but no fresh territory had become involved. The tongue was now cleaning and becoming moist. The delirium had disappeared, the appetite was returning.

December 31. The restlessness was gone, the flow of urine was abundant; the disease was not spreading.

January 1, 1905. The left ear and the left side of head, which were still involved, assumed the normal appearance three days later. Urine scanty.

January 2. Retention of urine occurred, the secretion was abundant when drawn off by the catheter, a process we were compelled to continue for three days. The tongue was now clean and moist, the appetite good, but the face, ears and lips, were still much swollen.

January 5. The right ear is somewhat swollen still, and the eyelids show ulceration from superficial abscesses. The patient feels well except for her sore mouth; she urinates voluntarily, again.

#### GENERAL REMARKS ON TREATMENT.

We have been taught that the streptococcus which produces erysipelas is the same organism that commonly causes septicemia after labor, and that the germs cling to clothing and hands with such tenacity that, as Osler puts it, you should never attend a case of confinement while treating a case of erysipelas. Here a patient, already three or four days ill with a severe facial erysipelas, dry, brown tongue, active delirium and enormous swelling of the face, with a temperature of  $105^{\circ}$ , a pulse-rate of 120, is taken in labor and must be protected from streptococcic infection.

How to accomplish this task in a house already germ-laden, and from which the patient's mother, her servant, and her nurse had, during her illness, to be sent to their respective homes, each suffering from a follicular tonsillitis, due to unsanitary surroundings, was a question the favorable solution of which was of vital importance to the patient.

Aseptic midwifery is an ideal we all worship, but to rest content with the strictest asepticism under circumstances such as these would probably have resulted in the death of the patient a few days later from septicemia.

When the labor was well advanced, but previous to delivery, the thighs, buttocks, and vulva were given a good antiseptic scrubbing, and a large sterilized pad was placed over the vulva, no vaginal examination having been made at any time. The patient was completely disrobed and carried to a bed farthest removed from the room in which she lay, while fresh clothing and bedding were used. A large wad of sterilized cotton was kept constantly applied over the vulva, the nurse using sterilized rubber gloves to change the dressings and sponge the vulva with antiseptic washes.

Antistreptococcic serum (P. D. & Co.) was used liberally for the double purpose of protecting the patient against infection and arresting the progress of the erysipelas, both of which it accomplished admirably.

Within twenty-four hours after beginning the administration of the serum, there was a decided effect, first upon the pulse, then the temperature, condition of the tongue, and delirium. The baby was born on the 27th, and three doses of serum were given on the 28th, when both pulse and temperature went down; at this time the serum was being used every six hours. On the 29th, three more doses were given every six hours, and, as the delirium and temperature were declining, the interval between doses was lengthened to eight, and then to twelve hours, so that in four days after, twelve doses of serum had been given, the temperature was subnormal never to rise above normal.

The only unpleasant symptoms were retention of urine, which lasted three days, and the subnormal temperature for a few days.

The erysipelas continued to spread for four days after the first administration of the serum, even though the constitutional symptoms showed an improvement, and I am not prepared to say the erysipelas would not have pursued as favorable a course if serum had not been used, but I think from experience previously had, that it would not, and I certainly will use it in my next severe case of erysipelas; but it is of its protective influence I wish especially to speak.

This patient was debilitated to such an extent that she was suffering from aphthous sore mouth. She was surrounded by such unhygienic influences as to develop a severe erysipelas. Three inmates of the house contracted follicular tonsillitis (a streptococcic infection) though there were no other cases in the section, so that one would expect little resisting power in the patient at the time of labor even without the proximity of so contagious a disease as erysipelas. While due precaution was adopted to prevent germs finding entrance to the vagina, I cannot think the parts escaped contamination under all the circumstances.



There was no pelvic involvement, and the patient made an excellent recovery.

This is an example of serum conferring immunity against infection, and of its value in this field I cannot speak too highly.

As a curative agent in infection following labor the results have been variable in different experimenters' hands. It may be because of delay in administration, or it may be due to insufficient persistence in its use, but as a prophylactic there can be no doubt of its efficacy. Vaccination furnishes immunity but is not curative; antitoxin furnishes immunity and is also curative, but it must be administered early in the disease and in sufficiently large doses. No fact is better established than that the efficiency of antitoxin is in direct proportion to the earliness of its administration, and if antistreptococcic serum is a prophylactic, as this case seems to indicate, it seems reasonable to assume it to be equally as curative as antitoxin if it be prescribed sufficiently early and in sufficient doses.

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## INQUIRIES AND REPLIES.

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“CASE IN PRACTICE.—March 20th, primipara, age 22; expects to be confined April 10th; has had slight albuminuria for some time, but this has steadily grown worse lately. There are also abundant hyaline and epithelial casts, arterial tension high, urine scanty and loaded with urates at times; there is frequently headache, some swelling of the limbs. Has occasional attacks of pretty severe pains in the region of the epigastrium, and some vomiting. She is on a milk diet largely, and the skin and bowels are being kept active. I find that nitro-glycerine increases the flow of urine and lessens the arterial tension. I have started giving her thyroids, which I see recommended for this condition. Do you advise this form of treatment? Would you advise induction of premature labor, or watch her closely and try to carry her along? She says that she feels pretty well, except when she has attacks of pain in her stomach. In the event of eclampsia, would you advise rapid emptying of the uterus, or endeavoring to control the convulsions, and endeavoring to eliminate the poison?”

The general plan of treatment is correct. As there appears to be acute nephritis, a “largely milk diet” will answer, at least for a time. In many cases a more generous diet, such as that now recommended for chronic nephritis, is better. A daily warm bath is probably sufficient to keep the skin acting. The hot pack used by some is weakening. In carrying out the eliminative treatment calomel should be used in fairly large quantities, followed by epsom salts or other saline cathartics in.

sufficient quantities to produce three to ten watery evacuations during twenty-four hours. This is practically the treatment carried out by our fathers for toxemia of pregnancy. Nitroglycerine accelerates the pulse and relaxes the arteries and arterioles, but sometimes causes headache. Care should be used in administering it, and the serious mistake of giving it when the arterioles are relaxed should never be made. With respect to the administration of thyroid extract, many of us think that the results in organorthopy have not fulfilled expectations. Thyroid preparations appear to have value in the treatment of myxedema and goitre, and also, I think, in some cases of toxemia of pregnancy, when the edema of the extremities, especially the ankles, is hard, and myxedematous, with scanty urine and high tension following. Its indiscriminate use in the toxemia of pregnancy by a large portion of practitioners, has probably done much harm. It should never be administered except to the strong and robust, because it is apt to reduce the patient's strength materially, the most important symptoms in such a case being loss of weight, shortness of breath and a weak and rapid pulse.

It is difficult to advise as to the induction of premature labor. In the majority of cases it seems better to carry the patient on to full term. If, however, notwithstanding active treatment, the patient grows steadily worse, an operation is sometimes advisable. After the occurrence of convulsions the treatment should be two-fold, administer morphine, etc., to control the convulsions and help nature to empty the uterus. In certain cases when there is no dilation of the os, the convulsions may be controlled and the patient allowed to wait for the advent of labor. In many cases it is a somewhat simple matter after the patient has morphine and chloroform to dilate the os and empty the uterus.—ED.

"CASE II.—A young girl, aged 17, menstruates every fourteen days, causing considerable weakening. She also has incipient tuberculosis. Have endeavored to check the hemorrhages but have failed, so far. Can you give me any advice?"

There is no specific which will control the hemorrhages under such circumstances. General constitutional treatment is required. The open-air or sanitarium treatment for tuberculosis would be most suitable in such a case, the patient being kept quiet during her periods, and receiving some preparation of ergot with *viburnum prunifolium*.—ED.

QUESTION III.—"What axis-traction forceps do you prefer?"

For many years I used the Milne-Murray axis-traction forceps, but during the last three years I have used the Porter-Mathew instrument, which is really a modification of Milne-Murray's forceps, but is lighter, has better shaped blades, and occupies less room in the obstetrical satchel.—ED.

## Selected Articles.

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### OBSERVATIONS UPON ANTERIOR METATARSALGIA, WITH NOTES ON SEVEN CASES.

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BY LAMING EVANS, M.A., M.D., B.C. (CANTAB.), F.R.C.S. (ENG.),  
Surgeon to the Royal Orthopedic Hospital, Surgeon to the Western General  
Dispensary.

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In 1876, T. G. Morton,<sup>1</sup> of Philadelphia, described a series of cases characterised by recurrent pain in the region of the fourth metatarsophalangeal articulation. The pain was usually severe and cramp-like, and spread from the articulation, both down the toe on to the dorsum of the foot, and up the leg, with variations in different cases. The paroxysm might, in some cases, be relieved by removing the shoe and rubbing or otherwise manipulating the parts. The pain was ascribed to the compression of the external plantar nerve, or its interosseous fibres, by the fourth and fifth metatarsal bones. He attributed the constant site of the affection (1) to the peculiar distribution of the external plantar nerve; (2) to the relative shortness of the fifth metatarsal bone, whereby its head and the base of the adjoining phalanx were brought in contact with the head and neck of the fifth metatarsal bone, when lateral compression was exerted; (3) to the mobility of the fifth metatarsal bone, enabling it to roll above and below the fourth. He ascribed the original cause of the abnormal mobility to injury, possibly rupture of the transverse ligament; and of the compression to tight shoes; in some cases no cause could be assigned.

The clinical picture, as portrayed by Morton, remains good for cases seen to-day.

The treatment advocated was removal of the head and neck of the fourth metatarsal bone, thereby relieving the branches of the external plantar nerve from pressure between those parts and the head of the fifth metatarsal and the base of the adjoining phalanx. The treatment was successful in all cases so dealt with.

In 1886, ten years later, Morton<sup>2</sup> recommended for mild cases the support of a flannel bandage round the metatarsus, and the use of broad, thick-soled boots.

In 1889, A. Poullosson,<sup>3</sup> of Lyons, described a case under the title of "Anterior Metatarsalgia," apparently identical to those described by Morton. He ascribed the symptoms to a laxity of the transverse metatarsal ligament, permitting a subluxation of the head of the fourth metatarsal bone whereby the nerves

distributed on either side of that bone were subjected to lateral compression. On this theory he successfully treated the case by a rubber pad placed beneath the depressed bone. This case was reviewed at some length in the *Lancet*.<sup>4</sup>

Roughton<sup>5</sup> reported a similar case, and asserted that the symptoms "were clearly due to sinking of the anterior transverse arch and to the resulting pressure of the heads of two or three middle metatarsal bones upon the sensitive structures of the sole of the foot."

In 1890, C. E. Woodruff<sup>6</sup> stated that anterior metatarsalgia was caused by giving way of the transverse ligament by long standing, injury, and the like; that the pain was caused by pressure on the digital nerves of the foot, and that it should be treated by pads beneath the anterior arch.

In 1891, Bradford,<sup>7</sup> of Boston, described sixteen cases, all of which appear to have been relieved or cured by external applications and by wide-soled boots. Resection was not found necessary in a single case. He accepted Morton's theory that "the pain was entirely due to an irritated condition of the external plantar nerve caused by pressure."

In 1892, Guthrie<sup>8</sup> reported a case of anterior metatarsalgia, caused by depression of the head of the third metatarsal bone, which he treated with a supporting pad.

In 1893, J. S. K. Morton<sup>9</sup> reported six cases, all of which had been treated by resection of the head of the metatarsal bone; in none of these cases had he been able to demonstrate any laxity of the transverse ligament or other abnormal condition at the time of operation. He advocated thick-soled boots, sufficiently firm about the instep, together with the support of the flannel bandage in milder cases, and resection as the only cure for advanced cases.

In 1894, Gibney<sup>10</sup> reported six cases. He advocated that the longitudinal arch of the foot should be supported by a high-arched shoe, made on a Spanish last, in order to relieve the metatarsus of as much weight as possible. He further recommended that the *bases* of the metatarsal bones should be strapped, on the supposition that the heads of these bones would be thereby separated. He accepted Morton's original theory of causation.

In 1894, Goldthwait,<sup>11</sup> of Boston, described the relation between the depression of the transverse arch and the symptoms of anterior metatarsalgia. He concluded (1) that depression of the transverse arch was more common than that of the longitudinal arch; (2) that few persons were inconvenienced by it; (3) that in some, pain of a constant or paroxysmal character was present, usually referred to the centre of the arch, where a painful callus might be found; (4) that this location of pain was

much more common in his experience than at the point described by Morton: (5) that the causes of the depression were similar to those of the longitudinal arch, namely, excessive standing or walking, injury, weakness after long illness and probably improper shoes, particularly those too narrow; (6) that the depression of the transverse arch could be demonstrated by an impression of the sole, which showed an absence of the re-entering angle; (7) that the condition could be relieved by pads of leather or felt placed beneath the depressed bone or bones.

In 1897, Robert Jones,<sup>12</sup> of Liverpool, recognized depression of the anterior arch as a cause of the symptoms, but considered this was usually secondary to flat foot. He maintained that the characteristic pain was not caused by pinching of the nerves, because the metatarsal bones are separated when depressed, but was due to the direct downward pressure of the displaced bones upon the plantar nerve in the sole of the foot. His treatment was resection, and after-treatment, thick-soled boots, raised on the inner border as advocated by Thomas for the treatment of flat foot, with well-fitting insteps to support the longitudinal arch.

In 1897, T. G. Morton<sup>13</sup> showed by means of skiagrams that in two cases of metatarsalgia the first phalanx of the fifth toe was in close apposition to the head of the fourth metatarsal, and that there was a free space between the fifth and fourth metatarsals.

In 1898, Jones and Tubby<sup>14</sup> conjointly published thirty cases, and held that the cause of pain was pressure of the head of the fourth metatarsal bone upon the communicating branch between the external and internal divisions of the plantar nerve.

So divergent are the views of surgeons who have recorded their experience as to the etiology of this complaint, that it will be of benefit to briefly summarize them. Thus, Morton described this affection in feet otherwise normal, so also Bradford, whereas Jones found twelve out of fifteen cases affected with flat foot, and indeed considers this as the chief etiological feature. The site of the pain has most frequently been located in the fourth metatarso-phalangeal joint; yet Goldthwait states that the pain is much more frequent in other joints. Equally divergent are the views as to treatment. Thus, Morton and Jones have had to resort to resection in many cases, whereas Bradford, Gibney and Goldthwait state that the operation was never required.

In dealing with this subject, one is at once confronted with the difficulty of classifying cases. Various methods might be adopted, but all have their objections. Thus, the clinical manifestations vary in each individual case so markedly, from time to time and from surrounding circumstances, that any one case-

might fairly be included in more than one clinical classification. Again, our knowledge of the pathology is so infinitesimal that it affords no help. Further, the results of treatment are so variable, not only in the hands of different surgeons, but also with the same surgeon in dealing with the same case, that any classification based upon relief by instrumental or operative methods proves equally unsatisfactory.

The character of the pain varies from a dull aching, more or less localized to a small area of the foot, to an agonizing cramp-like paroxysm extending up to the loin. The following two cases may be taken to illustrate this variation:

CASE I.—Miss B., aged 25; commenced in right foot seven years ago. Starts with a click; then experiences a sensation of hot and cold up and down body; then experiences acute pain in region of fourth metatarsal head which radiates down the toe on to the dorsum of the foot, and to two inches above the ankle. The attacks occur several times a day, and never a day passes without an attack. There is tenderness on pressure over the third and fourth metatarso-phalangeal joints. The longitudinal and transverse arches are well marked. There is no callosity. The head of the fourth metatarsal is not depressed. This patient experiences a dull pain, limited to the region of the fourth metatarsal head and corresponding toe on the left side; there is no radiation beyond this region, and the pain is not accompanied by the sensation of clicking. A tracing shows that the longitudinal arch is slightly lower in this foot than in the right, which is probably correctly explained by the increased work performed in the relief of the more affected foot.

CASE II.—Miss M. D., aged 30; commenced three years ago with swelling of foot and acute pain; has been a sufferer from weak ankles with pain in region of scaphoid and round ankles for upwards of ten years, and has worn instep supports for many years. Three years ago, a totally different pain started in the region of the third and fourth metatarso-phalangeal heads on the dorsum of the foot, radiating up the leg to the outer side of the knee, then to the inner side of the knee, then up the thigh to the hip and loin. She experiences no sense of slipping. There is tenderness over the third and fourth metatarsal heads, with the maximum tenderness over the fourth. There are no callosities. The longitudinal and transverse arches are markedly depressed, and the head of the fourth metatarsal bone can be felt somewhat prominently in the sole of the foot. There is no pain in the right foot though both arches are depressed.

The severity of the attack is largely determined by the proneness with which it can be cut short by appropriate manipulations. The majority of observers note that relief is obtained

only after removal of the shoe and various pullings of the toes; and this knack of relieving the pain influences the patient considerably in submitting to radical treatment, and likewise the surgeon in recommending it. The following two cases contrast remarkably in this respect:

CASE III.—Mrs. M. W., aged 33; commenced ten years ago; is ascribed to bicycling in narrow-pointed shoes; attacks occur about once a month or more frequently. Pain, when severe and of long duration, is referred to the calf of the leg; can be relieved by removing the shoe and pulling the toe; has an accurate geography of her friends' houses, so that she can as soon as possible seek the shelter of their hospitality, and have her toe pulled if an attack commences when she is out. She is free from attacks for several weeks if in town, but they occur more frequently if she is walking on uneven ground in the country, and especially up and down hill. The fourth joint of the left foot only is affected. There is no dropping of the longitudinal or transverse arches. There is tenderness localized to the fourth metatarsal joint. It is interesting to note that some years ago she obtained relief for some months at the hands of another surgeon by submitting to some act of bloodless surgery under an anesthetic, assisted by subsequent massage, but the relief was of a temporary character only.

CASE IV.—Mrs. U., aged 51; commenced ten years ago; never knows when the attack will come on; sometimes can play two rounds of golf without an attack, and at others, after walking a hundred yards an attack will commence. She removes her boot, but no manipulation or other method will cut short or relieve the attack. The pain starts at the left fourth metatarso-phalangeal joint, radiates down the toe and up the leg to the lower part of the popliteal space. There is tenderness on pressure over the fourth metatarsal head. There is no plantar corn nor dropping of the transverse or longitudinal arches. An attack can be easily started by slight pressure on the head of the fourth metatarsal bone, but by no other passive manipulation of the foot.

The frequency of the attacks and the character of the pain may be of such a character as to totally disable the patient from all enjoyment of life or the pursuit of her avocation. This is shown in the following two cases:

CASE V.—Mrs. C., aged 35; commenced at the age of fifteen without apparent cause; was treated for many years without any relief by strapping, instep arches, special boots and rest. When she first came under my care, the pain of violent cramp-like character started in the fourth left metatarso-phalangeal joint, radiating to the toe and up to the hip. It was making her life a misery by its severity, its frequent occurrence, and

by an absence of amelioration by manipulation. She refused to try any further palliative measures, if indeed any remained to try, and I accordingly removed the head of the fourth metatarsal bone. Before operation, both arches were depressed, the head of the fourth metatarsal bone was prominent in the sole, and was tender upon pressure between the finger and thumb. A skiagram showed no deformity of the metatarsus or phalanges. The head removed showed a deficiency of cartilage near the junction of the cartilage and bone on the under surface. Fifteen months after operation, a tracing of the foot shows a fair longitudinal arch, with fair re-entering angle. The foot is functionally very good, but the recession of the fourth toe renders the foot somewhat unsightly, which scarcely deserves any worthy criticism in our present state of civilization. A steel sole plate, to support both arches, was worn for a few months after the operation. She has never felt any inconvenience or return of pain since the operation, although at present she informs me she is more than six months pregnant. To relieve the left foot before operation, she was in the habit of resting all her weight upon the right, which shows a greater depression of the longitudinal arch and complete obliteration of the re-entering angle, yet she shows no symptom of the disease in this foot.

CASE VI.—Miss E. M., aged 31; commenced four years ago. Starts with pain in fourth right metatarso-phalangeal joint extending to toe and up the leg as far as the hip. Attacks more severe during last eighteen months, and are provoked by standing half an hour or walking a hundred yards. The longitudinal and transverse arches are flattened, as shown by tracing, and the fourth metatarsal head can be felt unduly prominent in the sole. There is a diffuse callosity under the metatarsal heads. There is marked tenderness on pressure upon the fourth head. No relief during an attack can be obtained by manipulation. As this patient's work involved long standing, as superintendent in a laundry of a sisterhood, and as the affection incapacitated her for her work, I removed the fourth metatarsal head by the dorsal route. The specimen shows a loss of cartilage on the palmar surface, close to its junction to the bone. She has experienced no pain since the operation, and there is no weakening of the foot. Eight months previously to seeing me pain commenced in the same site in the left foot, but was not so severe as in the right. I advised her to await the result of the operation on the right foot before submitting to operation upon the left. Encouraged by the result upon the right foot, and palliative measures having failed, she is now awaiting a bed in the hospital to have the left foot similarly dealt with.

The character and frequency of the attacks may be influenced



by climate and weather, and the following case illustrates that those conditions which render the joints of neurasthenics painful and tender, may also precipitate an attack of metatarsalgia.

CASE VII.—Mrs. V., aged 30; commenced eight years ago, after bicycling in narrow fashionable shoes. Pain starts in right fourth metatarso-phalangeal joint and radiates when severe to the toe and up the leg as far as the knee. The frequency and severity of the attacks is much diminished when residing in a dry, bracing climate. Rough walking precipitates an attack, and strapping applied to the foot tends to relieve it. There is tenderness on pressure over the fourth metatarsal head on the right side; the longitudinal and transverse arches are well formed. The left foot is not affected, though the sole tracing is identical.

A summary of these cases shows the following points:

The pain involves the fourth metatarso-phalangeal joint in all cases, and the third in two cases; in this agreeing with most observers and differing from Goldthwait. Thus Whitman, in his last edition of his *Orthopedic Surgery*, records the location in seventy-eight cases: fourth in sixty; fourth and third in six; fourth, third and second in six; and in six only was the fourth joint free from pain.

All my cases occurred in women, in which sex it is acknowledged to be the more frequent. Thus in eighty-four cases quoted by Whitman, sixty-four were in women and twenty in men.

Six out of seven cases were seen in private practice, and the seventh was that of a woman, whose education was that of a private patient, and who only came under my care in the Royal Orthopedic Hospital by reason of her being a member of a religious sisterhood. This is also in agreement with the recorded cases. This point is still further emphasized by the fact that I have not been able to detect a single case in over 1,500 consecutive new cases attending the Welbeck Street Hospital for Nervous Diseases, whose cases I have investigated, and whose notes I have taken during the last nineteen months. More especially is this of interest as a nervous element has usually been attributed to enter largely into cases of metatarsalgia.

In none of these cases has there been a history of injury, nor of sudden onset, nor evidence of rupture of the transverse ligament. In two the condition was first noticed after bicycling in narrow shoes, and I think that the shoe is responsible, if not for the commencement of the affection, at any rate for its continuance in the early stages. For the attacks of pain never occur unless a boot or shoe is being worn, and are never relieved until they are removed. The modern fashionable high heel causes

more weight to be thrown upon the front of the foot and the narrow toes favor overriding of the fifth metatarsal upon the fourth, and limit the normal function of flexion of the phalanges in the act of walking forwards. In all my cases tenderness on pressure in the sole over the head of the fourth metatarsal bone was present. Ordinary manipulations of the foot were unable to elicit the typical paroxysms, but deep firm pressure at this spot invariably started an attack. A dropping of the transverse arch was observed in only three cases, and flat foot in three. That lowering of the longitudinal should play an important part in the etiology appears to me to be further negatived by an absence of all symptoms of metatarsalgia in many hundred cases of flat foot which I have treated. Further, I have seen many cases of complete obliteration of the transverse arch, either associated with flat foot or in cases of paralytic equinus, or of residual equinus in cases of congenital equinovarus, in which no symptoms of metatarsalgia were present.

The following case illustrates this point:

Miss G. E., aged 22, was suffering with hallux valgus with dorsal dislocation of the first phalanx of the second toe of the left foot. The head of the corresponding metatarsal bone was displaced downwards, and was felt prominently in the sole. It gave rise to pain on walking, as if a stone were constantly in her boot. The pain was strictly limited to this point and did not radiate, nor was it paroxysmal in type. I removed the head of this bone, which appeared normal, all cartilage being intact. Reviewing the case five months after the operation, I found that all discomfort had been removed, the deformity corrected and the foot not weakened.

In the cases treated by excision no changes have been observed in cartilage, bone or synovial membrane. Messrs. Tubby and Jones have found a neuritis, fibroma and an exostosis, the latter two pressing upon the communicating branch between the external and internal branches of the plantar nerve.

My own opportunities for observation have been limited. Two of the heads I have excised show a loss of cartilage on the under surfaces of the head, immediately adjacent to the junction of the bone and cartilage. The method of removal of the head by the dorsal route precludes the examination of the palmar surface at the time of the operation; for the interosseous and palmar ligaments have to be divided before the palmar surface of the head is exposed. It is possible that the cartilage at this point is detached from the head at the time these ligaments are severed. No remains of any cartilage was, however, seen attached to the ligaments at the time of operation. In conclusion, I would suggest that the following treatment should be adopted:

1. Remove immediate cause, namely, an ill-fitting shoe, and substitute a thick-soled shoe with high instep to support the longitudinal arch and relieve the front part of the foot of as much pressure as possible; with broad front to allow plenty of room for the toes to exert full flexion function.

2. Correct any apparent deformity of the arches by a steel sole plate, moulded before tempering upon a plaster cast of the foot, in which the depression of one or more joints has been corrected by filing.

3. Temporary relief may be afforded by pads of felt placed just behind the metatarsal heads.

4. Strapping is a simple experiment, and has been known to relieve.

5. In cases in which palliative measures have failed, proceed to resect without delay, with a fair chance of curing the disease and without fear of weakening the foot.

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# Progress of Medical Science.

## MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP  
AND F. A. CLARKSON.

### The Bible and the Physician.

At a recent even-song, for the special benefit of physicians, at an uptown church, the lesson was from Ecclesiasticus xxxviii. 1-15. As this book is reckoned among the apocrypha, and unknown, save to members of the Roman and Episcopal churches, and, we fear, unfamiliar even to many of these, we venture to transcribe the verses, read :

1. Honour a physician with the honour due unto him for the uses which ye may have of him ; for the Lord hath created him.

2. For of the most High cometh healing, and he shall receive honour of the King.

3. The skill of the physician shall lift up his head : and in the sight of great men he shall be in admiration.

4. The Lord hath created medicines out of the earth ; and he that is wise will not abhor them.

5. Was not the water made sweet with wood, that the virtue thereof might be known ?

6. And he hath given men skill, that he might be honoured in his marvellous works.

7. With such doth he heal (men), and taketh away their pains.

8. Of such doth the apothecary make a confection ; and of his works there is no end ; and from him is peace over all the earth.

9. My son, in thy sickness be not negligent : but pray unto the Lord, and he will make thee whole.

10. Leave off from sin, and order thine hands aright, and cleanse thy heart from all wickedness.

11. Give a sweet savor, and a memorial of fine flour ; make a fat offering, as not being.

12. Then give place to the physician, for the Lord hath created him : let him not go from thee, for thou hast need of him.

13. There is a time when in their hands there is good success.

14. For they shall also pray unto the Lord, that he would prosper that which they give for ease and remedy to prolong life.

15. He that sinneth before his Maker, let him fall into the hand of the physician.—*New York Medical Journal*.

### Gluttony as Cause of Symptomatic Epilepsy.

Spratling cites a case of epileptic convulsions due to dietetic errors, a fairly common condition, and one generally amenable to treatment. The patients are usually middle-aged men, leading inactive lives and eating and drinking to excess. The primary cause of the convulsive attacks in these cases seems to lie, first, in a weak stomach and, second, in some obscure disorder of metabolism. The type of convulsion is usually of the grand mal variety. The treatment consists of the elimination of waste and toxic products and the prevention of the recurrence of such products. Put the patient on a low diet, one that is easily digested, insist on absolute regularity in taking food, and going to bed on an empty stomach. Cut off all meat for supper and breakfast, and teach the patient to have a wholesome respect for cooked fruits, bread and butter, toast, milk, chocolate and cocoa, eggs, and other such things for supper. If there is a tendency to constipation, correct it by daily doses of the fluid extract of cascara, given some time before breakfast. Stop all use of alcohol, and if the patient is irritable or nervous, and if his attacks show a tendency to recur under the low dietetic régime, put him on a nerve sedative made up so that each dose represents from 10 to 15 grains of an equivalent of bromide of potassium. Let the patient take as much outdoor life as possible. Hydrotherapy is of great value.—*Med Record, and Jour. A. M. A.*

### Treatment of Sciatica.

Lange describes a modification of the injection treatment of sciatica which has given surprisingly fine results in his hands. To date he has applied it in only 11 cases, but the results have been so favorable that he does not wait for further confirmation. In one case a patient during seven weeks of frantic pain had been able to sleep only under the influence of morphin. Since a single injection by the technic described he has had no trace of the sciatica. One patient was a working man who for four months had suffered from sciatica and atrophy of the leg, and was only able to limp with a cane. In less than forty-eight hours he was entirely relieved and walked normally. The results were similarly perfect in 6 cases. Four other patients were essentially improved, and there was only one entire failure in the list. The latter case was distinguished by the sudden onset and severity of the attacks of sciatic pain. The technic consists in the injection of from 70 to 100 c.c. ( $2\frac{1}{2}$  to  $3\frac{1}{2}$  fl. oz.) of a solution of 1 per 1,000 beta eucain in 8 per 1,000 salt solution. The needle

is inserted through the muscle down to the sciatic nerve at its point of emergence from the sacro-sciatic foramen. There is no pain as the needle passes through the muscle, but the patient jumps the moment the nerve is touched. The pain is instantaneously deadened by the eucaïn injected. The patient is told not to lie on that side for a few hours. Except for a slightly painful sense of pressure, the sciatic affection is banished at one stroke in some cases, but a second injection may be required in others. Notwithstanding the small amount of eucaïn used—not more than from .1 to .15 gm.—sometimes slight, transient signs of intoxication were manifested. There was slight nausea and in one case transient loss of appetite for nearly three days. Lange also noticed that the taste was dulled for from one to three hours in some instances. No alarming symptoms of any kind were apparent in any case. In a few cases he observed distinct rise of temperature, never above 38.9 C., with a chill in one neurasthenic subject. He ascribes this temperature to an aseptic reaction to the mechanical lesion. He advocates trial of this method after failure of other measures. Its simplicity and harmlessness commend it for general adoption. The eucaïn is probably soon swept away and the permanent benefit derived must be due to the changes in the condition of the parts induced by the injected fluid, similar to the benefit derived from stretching the nerve.—*Munchen. med. Woch., and Jour. A. M. A.*

### Diazo Reaction in Tuberculosis.

Widstrand has made more than 2,000 examinations of the urine for the diazo test in 204 consumptives. Forty died in the hospital, and in 37 of these the diazo reaction was constant. In the 3 others the clinical diagnosis of pulmonary tuberculosis was not confirmed by the autopsy. In the mild or chronically latent cases the reaction was almost invariably negative. It is thus valuable for the prognosis and sometimes also for the differentiation. It is especially important when circumstances, such as frequent hemorrhages, forbid physical investigation. The positive reaction may turn the scale in favor of the assumption that the case is too far advanced for hope of a cure.

Holmgren gives excerpts from the hospital records of 158 cases of pulmonary tuberculosis, the results confirming the preceding conclusions. He adds that the stronger the reaction the nearer impending death, the interval not longer than from six to eight weeks. When the diazo is distinct but not strong, the maximal life expectancy can be placed, with great probability, at eighteen months, the average at six months. Among the patients in the third and in the advanced second stage, who presented a dubious or negative reaction, only 16 and 9 per cent., respectively, died within this average limit. A single

positive reaction is sufficient for these deductions, and, as the test is so simple and easy, it should be currently adopted as a practical and valuable guide to prognosis. It enables those with a specially unfavorable outlook to be distinguished among the advanced cases and their life expectancy to be stated with greater exactness than by the physical findings alone.—*Jour. A.M.A.*

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## SURGERY.

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IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH  
AND F. W. MARLOW.

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### Value of Medicated Clay Poultices.

A. H. Roth, Ann Arbor, Mich. (*Jour. A. M. A.*, April 15), has investigated the claims and the action of a representative medicated clay poultice. These preparations, he states, are made up of a base of silicate of ammonia and magnesia, to which various aromatics and antiseptics are added, together with glycerin to make a pasty mass. It is claimed that their external application acts as a reflex vasomotor stimulant and promotes dialysis through the skin. As the preparations are non-irritating, the reflex action must be exercised through the heat produced by the warm application, and Roth finds from careful experiments that they are inferior in this regard to ordinary warm flaxseed poultices. Experiments on the living subject showed that the dialyzing power was no more effective in exciting perspiration than heated gauze pads. There was no evidence of any osmosis or endo-mosis, as was shown by experiments made with fresh human skin as a membrane through which no fluid passed until it had become waterlogged, a condition which it is doubtful ever occurs in the living subject. Roth speaks especially against the practice of using these mixtures in open or septic wounds. Their value in acute rheumatism and pneumonia is not greater than that of older and simpler methods and in pneumonia, especially in children, their weight embarrasses respiration, and the presence of the clay mixture interferes with the necessary physical examinations. Their use is a revival of the old poultice method, for which better substitutes have been found.

NOTE.—The above excerpt, taken from the *Journal of the American Medical Association*, in our opinion deals very roughly with the medicated clays. We hold no brief for Antiphlogistine, but it seems to us as if the whole article was written to, in some way, lessen one's spleen against some one else, and probably that was Antiphlogistine. We have used the medicated

clays a great deal, and always with benefit, but we have never used them in open or septic wounds. We have found great advantage from the use of them in acute and muscular rheumatism, chronic joint inflammation and other conditions that are not necessary to enumerate here. The last sentence we do not agree with at all, because the use of these medicated clays is not a revival of the old poultice method that soften or scalded the cuticle, causing the formation of small and often large blisters, and rendering the surface more susceptible to septic absorption.

We append this note of our own volition, because we believe it due to the remedy that the article is supposed to condemn. If the article is as valuable as the space devoted to it would signify, the writer should have named the preparation rather than refer to it as "a representative medicated clay poultice."

E. E. K.

### **The Radical Cure of Senile Hypertrophy of the Prostate.**

Dr. Orville Horwitz, in a paper read before the Northwestern Branch of the Philadelphia County Medical Society, on "The Radical Cure of Senile Hypertrophy of the Prostate," summarizes the matter as follows:

1. A routine method is not applicable to the treatment of prostatic hypertrophy; every case is a law unto itself and the treatment will depend on the various conditions presented in each individual case.

2. The dangers attendant on the daily catheterism are greater than those of a radical operation performed at the onset of the symptoms caused by the obstruction.

3. The proper time to perform a radical operation is reached as soon as it becomes necessary for a patient to resort to daily catheterism.

4. The gratifying results obtained by a number of the operations in many cases demonstrate that the Bottini operation is one of great surgical value. It is applicable to a large percentage of cases; which, if properly selected, has proved to be the safest and best method of relieving an obstruction caused by prostatic hypertrophy. In those cases in which a stone in the bladder is associated with a prostatic enlargement, litholapaxy may be performed in conjunction with a galvano-cautery prostatectomy.

5. A complete prostatectomy is justifiable if performed early before the individual is broken down in health and secondary complications have supervened. In early operation the results are most satisfactory, recovery rapid, the mortality varying between five per cent. and seven per cent.

6. In a complete prostatectomy in feeble, elderly patients, with



long-standing obstruction and secondary complication, the prognosis is grave and the mortality ranges between fifteen per cent. and eighteen per cent. If the bladder in these cases happens to be hopelessly disabled, the results obtained by the operation are negative. Cases of this description are only suitable for suprapubic drainage. --

7. In ninety per cent. of all cases the gland can be readily removed by means of a median, perineal incision. The perineal operation recommended by Bryson is considered the operation of choice.

8. Complete suprapubic prostatectomy is shown to be more dangerous than the perineal operation for obvious reasons. A suprapubic prostatectomy is safer if combined with perineal drainage.

9. Partial suprapubic prostatectomy is indicated in such cases as where a valve-like lobe exists which interferes with urination, or where there is a partial hypertrophy of one of the lobes.

10. A perineal prostatectomy is best suited for those cases where the enlargement of the lateral lobes has a tendency to progress towards the rectum, to obstruct the urethra, or project backwards into the bladder.

11. A prostatectomy is always attended with more danger than the Bottini operation, and the convalescence is more prolonged. In suitable cases the latter operation is therefore the one of choice.

## Editorials.

### OBTAINED BY SUPERIOR ABILITY.

"It was a great day in the Fox's cave. The eldest cub had, the night before, brought home his first goose, and they were sitting down to it as the Cat came by.

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"Fox," she said, when it was over and the cubs were gone to play, "you are very clever. The other creatures are all stupid." The Fox bowed. "Your family were always clever," she continued. "I have heard about them in the books they use in our schoolroom. It is many years since your ancestor stole the crow's dinner."

"Don't say 'stole,' Cat, it is not pretty. Obtained by superior ability."

—From *The Cat's Pilgrimage*. JAMES ANTHONY FROUDE.

Opressed with the feeling that lack of time for reading and study was going to ruin our practice and render us useless to our patients, we eagerly snatched the first good book that came into the editorial sanctum and retired into a quiet corner with it, as anxious for non-intervention as any dog with a bone ever was. The book was well-printed, well bound, and well praised by the multitude, and we, the editor's most junior assistant, opened it with enthusiasm. It was the far-famed "American Year-Book of Medicine and Surgery," edited by Dr. Gould, with the assistance of twelve other great and good Americans, and gotten up by W. B. Saunders & Co. in their best style. It opened of its own accord at page 433, "Obstetric Operations." "Yes," said the junior, and proceeded with reverence to read within the sacred enclosure of square brackets, the original comments of Dr. Gould and his twelve authorities on this important subject. A good, hard, honest evening's reading, like the days when the junior was only a fourth-year student, is an enticing prospect.

But not five lines had been read when a sickening doubt of our own mental state began to trouble our mind. Where had we read this before? In vain we stoutly said, "Nonsense!—Nowhere, of course," and tried again. It would not down. The harder we tried to read, the more our senses seemed to reel; the more uncertain was our cerebration, the more one part of

our brain shouted to another, "I *have* read that somewhere before." The conflict went on for hours, but suffice it to say that the junior emerged from that conflict at last with the new and shining green American Year-Book in one hand, open at page 433, and in the other THE CANADIAN PRACTITIONER for April, 1904, open at page 196. Word for word, line for line, letter for letter, comma for comma, there it was! "Our Views" begins the PRACTITIONER'S editorial. "Our Views" begins the page of editorial comments in the Year-Book. True, paragraph four, referring to our esteemed friend, Dr. Stevenson, of Bradford, Ont. (who will please accept our condolences on so narrowly missing fame), is omitted, but all the rest is there—not one jot or tittle wanting.

Truly, this is an example of professional and editorial etiquette somewhat rare. Dr. Gould will be sorry. He does not do things this way. He cannot oversee every detail. But what of the responsible sub-editor of the section?

The new and practical and up-to-date definition of stealing, viz., "obtaining by superior ability," does not appear in any medical dictionary that we have in this office.

This display of "superior ability" is all the more to be regretted because the stolen page is also one of the many good pages in the new work on Obstetrics (now in press), by our senior editor, Dr. Adam H. Wright, from whose pen, of course, the PRACTITIONER'S editorial came.

"In vain we call old notions fudge,  
And bend our conscience to our dealing;  
The Ten Commandments will not budge,  
And stealing still continues stealing."

—James Russell Lowell.

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## THE TELEPHONE.

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Few people suffer more from the telephone, its vagaries, its injustice, and its grasping monopoly than doctors do. All success to Sir William Mulock in attempting to mend matters.

We do not want two or three rival telephone companies in Ontario, for we would rather bear the evils that we have than fly to others that we know not of, and anyone who has lived

in American cities and been compelled to have two telephones in his office—one belonging to one company and the other to its rival—will bear us out in this statement. In Baltimore, for example, the state of things is so bad that most of the prominent physicians will not have telephones at all, preferring to retain their sanity. If the Bell Telephone Company is wise it will meet the public half way. There are three chief complaints at present. 1st. The service costs the subscriber too much. 2nd. The telephone is not answered as well as it should be from the central office. 3rd. The company takes every opportunity to compel additional outlay on the part of the subscribers.

1st. The cost of the service, \$40 per annum to physicians, is excessive. It simply means that the company, as a monopoly, is forcing us to pay, not a fair sum, but a rather extortionate one.

2nd. The answering of telephone calls. Why is it that the doctor on ringing up his own office is told "line busy" when the line is *not* busy? This happens to us all. It happened to the writer the other day in a drug store, and the druggist, an experienced man, said that he understood the company employed a "cheap line of operators." A telephone employee, a patient of the writer, says that a good many girls of fourteen have replaced older and more experienced operators. In justice we must add that some of the central operators are excellent, and that the man who comes to see what is wrong when "No. 1000" has been rung up, is almost always competent and civil. But this does not answer the average telephone call!

3rd. A great many of the telephone instruments in Ontario are out of date: often the very same that were put in when the telephone was first invented. If the subscriber complains of a poor and worn-out instrument he has no redress, but is compelled to pay \$5.00 *extra a year* for a proper instrument. Total, \$45 per year. Now, is this fair? What do we pay the \$40 for if not for a telephone we can use!

Again, if we need another instrument in the house connected with the first, one upstairs, say, and one down stairs, the telephone monopoly makes us pay \$18 or \$20 per year additional for the rent of the second instrument. Why? Not

because it is worth it, but because the company has us in the monopoly prison, and we cannot by any means get out thence until we have paid the uttermost farthing.

Go on, Sir William Mulock; go on and prosper.

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### ORIGIN OF SYPHILIS.

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Although the introduction of syphilis among Europeans is of comparatively recent date, its history is shrouded so mysteriously that we can only guess at its origin. Even the etymology of the word is obscure. Some derive it from the Greek "syn" *with*, and "philos" *love*, but there is much doubt about this. The word, as far as can now be learned, was first used in 1530 as the title of a poem by Hieronymus Fracastorius, an Italian physician, and a man of such great culture and elegance of Latin style that he almost merited his epithet of "The Divine."

There is a fable that the disease dated from the siege of Naples (1494), when the besieged Spanish garrison, comprising some of the crew of Columbus, infected the French army, who in turn rapidly scattered it throughout Europe; hence the common name, *morbus gallicus*. But the French denied this and called the disease, *morbus neapolitanus*, after the place of its birth. Probably both names show only the racial antipathies of mud-throwing patriots.

It is interesting to note, in view of some more modern ideas of syphilis, that Paracelsus attributed the origin to the intercourse of a leper with a prostitute, and that Fallopius informed the professional world that the original epidemic of the "French disease" came from wine, which the Spaniards, in the siege of Naples, had poisoned with the blood of a leprous soldier. When the besieging and victorious French took possession of the city, they drank freely of the luscious wine, and soon after developed typical symptoms of venereal disease. Even our own Chancellor, Lord Bacon, averred that in this famous siege the French ate human flesh, which had been prepared from men killed in Barbary, where the people consume large quantities of fish. And so the theories of the close relationship between syphilis, leprosy and fish are not at all modern.

There is no doubt that venereal diseases contracted from individuals of a remoter race, are more markedly severe and much more destructive in their type than those contracted from persons of the same nationality. The chancres of the wharf districts of large cities are always bad, because the females of those localities enjoy the continuous patronage of the foreign sailors and refugees—the dregs of other countries. And so there may be a grain of truth in the fable to which we referred. It may be that syphilis, in a very mild form, was comparatively common all over Europe, but that the fresh inoculations brought back from America, and so freely scattered about during the siege of Naples, gave a new vigor to the disease, which attracted the attention of physicians, and caused them to mistake it for a new infection.

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## THE DOCTOR AND COMMERCIAL INVESTMENTS.

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A circular has been sent out recently to a large number of physicians offering preferred stock in a sanitarium company, in which the promoters say: "We take pleasure in announcing that our receipts have increased three times in six years, and that the daily average for 1904 was 75 people. Owing to the increased business and from the fact that we are paying good dividends, the company have decided to submit to the leading physicians the enclosed offer of preference stock."

In the circular it says: "The directors have decided to issue 150 shares of the company as preference stock, at a par value of \$100 per share, with a dividend of 7 per cent. per annum, payable half-yearly, such dividends to be cumulative. The company reserves the right to redeem the stock at the end of ten years at \$110 per share and accrued dividends."

This looks like a safe investment; we rather believe it to be so; the sanitarium company is undoubtedly in a flourishing condition. That they require money to enlarge their premises and extend their business is by no means peculiar, but it does seem strange that the company should expect physicians, or anybody else, with an eye to business, to subscribe their money on a 7 per cent. accumulative basis, and just when the concern is, or

should be, on a sound paying basis, to be forced to sell the stock at a premium of 10 per cent. There is no doubt about it that the promoters are selling the stock with a large-sized string on it, and as such we do not see why physicians should subscribe. If they want this money, and are willing to take subscriptions at the present time at par value, surely the increased value of the stock should accrue to the man who invested his money while the venture is on an ordinary paying basis. This idea of subscribing for stock to be redeemed at a premium of 10 per cent. in ten years, is not a fair basis to the subscriber. If the company fails and does not meet its expectations, the stock is worth nothing, except whatever the assets may bring, and the bonds will likely take the lion's share of these. If the venture is successful, then the subscriber must sell it at a paltry 10 per cent. increase, or 1 per cent. per year. It is true he has had good interest on his money, but he might have been able to have made a more profitable investment. It is stated in the application for stock, "I further agree to and with the company, that the said stock so subscribed for and allotted to me by the company may, at the option of the company, be redeemed at \$110 per share on the 1st January, 1916."

This places the increased value of the stock, as we say, at 1 per cent. per year, but if the proposition goes on as it has in the past six years, and the sanitarium company should, as they state in the first part of their circular, increase "three times in six years," the value of this stock will be increased at least 50 per cent., consequently there should be no agreement to sell at \$110, or any fixed sum. If the venture does not pay, or if the business requires constant reinvestment of capital, the interest may not be paid year by year, but will accumulate; consequently the interest is still a first charge. At the same time it may not be payable to the stockholder until probably the ten years have expired. Doctors, as a rule, are very poor business men, and a proposition such as this, which holds for them an accumulating 7 per cent. investment, with a 1 per cent. premium on stock, making it appear to be an 8 per cent. investment, has a glamor about it that is somewhat attractive to the untrained business eye. We cannot see, however, how this is such a grand investment with the re-purchase string attached to it.

## CANADIAN MEDICAL DINNER IN LONDON, ENGLAND.

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There is quite a colony of Canadian physicians in London, England, and in that colony there is a good-sized party of the ex-members of the House Staff of the Toronto General Hospital. Dr. Donald Armour, who has been living in England for some years, entertained the latter at dinner, April 4th. There were present in addition to the host, Doctors J. M. Cochrane, Jas. M. MacCallum, W. J. Malloch, Geo. W. Badgerow, S. H. Weston, Colin Campbell, E. D. Carder, A. C. Hendrick, H. Lowry, W. W. Jones, J. R. McCollum, G. W. Ross, A. T. Stanton, G. A. Schmidt, P. W. Saunders, T. P. Weir, Arthur B. Wright, R. D. Sproat, A. D. McEachran and Stewart.

We are told by some of the "Boys" who were present that they spent a very enjoyable evening. Among the toasts proposed by the host, who welcomed his Canadian confreres in a very happy speech, were "The King," "Canada and the Empire," and the "Toronto General Hospital, coupled with the name of its Superintendent, Dr. Chas. O'Reilly."

We are informed by the *Toronto Globe* that this toast was responded to by every man present, and the result was a tremendous flow of eloquence that lasted so long that there was no time for any other toasts. The many references to their old chief, Dr. O'Reilly, were of the most pleasant sort.

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## ONTARIO MEDICAL ASSOCIATION.

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The twenty-fifth annual meeting of the Ontario Medical Association will be held June 6, 7, 8, in the west lecture hall of the New Medical Building of the Faculty of Medicine of the Toronto University, under the presidency of Dr. Burt, of Paris.

For many years the meetings occupied two days only. In the year 1903 there was a three days' meeting for the first time, and there was also a similar length of time occupied in 1904. This was found so satisfactory in both 1903 and 1904, that the Committee on Papers and Business for this year have decided to follow the examples of the officers of the last two-



years; and it now seems likely that the three days' meeting has become practically a permanency.

Among the invited guests who have promised to attend are: Doctors A. J. Ochsner and W. B. Pritchard. Dr. Ochsner is surgeon to St. Augustine Hospital, Chicago, and is recognized as one of the best clinical teachers of Surgery in the United States. Dr. Pritchard is a professor in the Post-Graduate College of New York City, and is well known as an able neurologist and excellent clinical teacher. These two men are fairly well known to the profession of Ontario, and are likely to receive a warm welcome at the meeting.

We are informed by the Secretary that the programme is nearly completed, but we are also asked to announce, that all members who intend to present papers should inform the Secretary, Dr. Chas. P. Lusk, 99 Bloor Street West, Toronto, as soon as possible.

We have referred in previous issues to the indefatigable efforts of our President, Dr. Burt, to make this meeting a success; and, as intimated before, we know of no president who has worked more faithfully in the interests of the Association. We sincerely hope that he will get what he richly deserves, that is, the cordial support of all members of the profession in Ontario in his efforts to make the coming meeting a success.

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### Canadian Medical Association.

The thirty-eighth annual meeting of the Canadian Medical Association will be held at Halifax, N.S., August 22nd to 25th, 1905. The General Secretary, Dr. George Elliott, 203 Beverley Street, Toronto, in his official notice respecting the meeting, calls attention to the following extracts from the constitution:

All papers (and abstracts thereof) should be in the hands of the Committee on Papers and Business at least three weeks before the date of meeting.

A copy of every address, discourse, or paper read before the Association shall be handed at once to the General Secretary, and shall become the property of the Association, and shall be held with the other documents.

Members desiring their papers to appear in any particular medical journal shall present a duplicate copy, with the name of the journal marked thereon.

We are glad to know that the physicians of the Canadian

Medical Association are taking a very active interest in the welfare of that admirable organization which is known as the Canadian Medical Protective Association, and are very anxious that all their members should join the latter body. In the same connection we are glad to know that many local societies are taking an active interest in this Association, and are making special efforts to secure in the near future as many new members as possible.

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## TORONTO GENERAL HOSPITAL.

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### STATISTICS FOR MARCH, 1905.

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Patients in Hospital, February 28th.....	305
Patients admitted in March.....	283
Births in March.....	20
<b>Total in March .....</b>	<b>608</b>
Deaths in March.....	17
Discharged in March (including 130 who had operations performed during their stay in Hospital.).....	302
Number in Hospital, March 31st (not including infants)..	269

#### DEATHS IN MARCH.

Abscess, alveolar, 1; Bright's disease, 1; cancer, arm, 1; cancer, rectum, 1; erysipelas, 1; gunshot wound, 1; fracture of skull, 1; fracture of ribs, 1; heart disease, 2; miscarriage, 1; pneumonia, 1; empyema, 1; uremia, 1; peritonitis, 1; stone in kidney, 1; nephritis, acute, 1.

During March 836 extern patients received advice and medicine at General, and 198 accident cases received first aid at Emergency Branch, 105 Bay Street.

## Personals.

Dr. R. W. Powell, of Ottawa, visited Toronto, April 12th.

Dr. Edmund E. King expects to sail for England, May 5th.

Dr. Joseph Graham returned from England to Toronto, April 3rd.

Dr. H. F. MacKendrick, of Galt, was in town during Horse Show week.

Dr. W. P. Caven, of Toronto, went to St. Mary's, Ont., April 21st, for a week's holiday.

Dr. Andrew D. Farrell (Trin. '00) has been appointed Associate Coroner for Hastings County.

Dr. W. H. B. Aikins left Vienna for Paris, April 17th, and expected to reach Toronto about May 6th.

Dr. Geo. McDonagh, after his Mediterranean trip, returned to Toronto, April 3rd, and commenced practice, April 5th.

Dr. James F. W. Ross left Florida, April 1st, returning to Toronto, April 6th, and resuming his practice on April 7th.

Dr. W. H. B. Aikins when last heard from was about to leave Vienna, and expected to reach Toronto about May 5th.

Dr. Welford, of Woodstock, was slightly injured by the explosion of an acetylene generator in his house, March 17th, but has quite recovered.

Drs. Hendrick, Carder and Malloch reached London, England, March 20th, and will be engaged at post-graduate work for some time in that city.

Dr. Wm. S. Thayer who has been chief assistant to Dr. Osler for some years in Clinical Medicine, has been appointed Professor of Clinical Medicine in the same University.

Dr. Frank S. Nicholson (Trin. '94), Surgeon-Major Nebraska National Guard, visited his friends in Toronto early in April, after completing a post-graduate course in the Army Medical School, Washington.

The medical profession of the United States and Canada gave a banquet in honor of Dr. Osler at the Waldorf-Astoria, New York, on May 2nd. Dr. Osler expects to leave for Oxford, May 17th.

Dr. J. P. Russell, of Simcoe Street, has sold his practice and residence, and after a brief holiday in Strathroy, will locate in the far West. Dr. Russell has received an appointment on the Grand Trunk Pacific Railroad.

Dr. Emory Lanphear, who for twenty-five years has conducted the editorial work of, and latterly owned, the *American Surgery and Gynecology*, has sold the journal to Dr. J. MacDonald, jr.

Dr. Lewellys F. Barker who has been head of the Department of Anatomy for nearly five years at Chicago University, has been appointed Professor of Medicine in Johns Hopkins University in the place of Dr. Osler.

Dr. George A. Peters, of Toronto, is slowly recovering from his attack of la grippe, but does not expect to do any active surgical work for three or four months. He and his family are at present living on a farm, near London, Ont.

Dr. Osler's medical friends in Toronto desired to entertain him at a dinner before he left for Oxford. Dr. Osler, however, had so many engagements that it was found impossible to fix a date in all respects satisfactory, and the Committee in charge desired to postpone the event (for, it is hoped, a not very long period).

Dr. John L. Bray, of Chatham, received the honorary degree of LL.D. from Queen's University, Kingston, at the recent Convocation. Dr. Bray is one of the most progressive physicians in Canada, and has taken an active interest in higher medical education; is a Past-President of the Canadian Medical Association, and also a Past-President of the Ontario Medical Council, of which he has been a member for twenty-five years. Congratulations!

Dr. J. MacDonald, jr, who for the past fourteen years has been manager and managing editor of the *International Journal of Surgery*, has severed his connection with that journal, and has purchased *American Surgery and Gynecology*, published in St. Louis. He has associated with him as contributory editors, Robt. T. Morris, Professor of Surgery, N. Y. Post-Graduate School; Howard Lilienthal, Visiting Surgeon Mount Sinai Hospital, N.Y.; J. P. Tuttle, Professor Rectal Diseases, N. Y. Polyclinic; Jas. T. McKernan, Professor Nose and Throat, N. Y. Post-Graduate School; Samuel G. Gant, Professor Rectal Diseases, N. Y. Post-Graduate School; Augustin H. Goelet, Professor Gynecology, N. Y. Clinical School of Medicine; C. Wendell Phillips, Professor Diseases of the Ear, N. Y. Post-Graduate School; Ferdinand C. Valentine, New York, and has changed the name to *The American Journal of Surgery*. We wish Dr. MacDonald all success, and we have no doubt but that in his new sphere he will bring *The American Journal of Surgery* to a very high standard.

**J. A. KELLY, M. D.**

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Dr. Kelly, of Durham, Ont., died in South Omaha, March 9th. He graduated M.D. from McGill University in 1887.

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**JOHN A. NELLES, M.D.**

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Dr. Nelles was one of the oldest practitioners of Ontario. He died at his home in London, March 25th, aged 78. Apoplexy is said to have been the cause of death. He graduated M.D. from McGill University in 1850.

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**WILLIAM HENRY JOHNSON, M.D.**

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Dr. W. H. Johnson, a practitioner in Fergus for many years, died at his old home in Eramosa Township, April 18th, aged 60. He graduated M.D. from the University of Victoria College in 1873. Although engaged in a laborious practice he was an active public citizen, being Surgeon-Major of the 30th Battalion, President of the Horticultural Society, and Secretary of the Public Library Board.

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**JOHN HERALD, M.A., M.D.**

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Dr. Herald, of Kingston, Ont., died April 12th, in the Toronto General Hospital. Abdominal section had been performed on the previous day, and a large number of gall-stones were removed. He never rallied after the operation, and died in about twenty-four hours from pulmonary thrombosis.

Dr. Herald was educated at Queen's University, Kingston, and became B.A. in 1876, M.A. in 1880 and M.D. in 1884, and was subsequently appointed a member of the staff of that institution. He was also for some years a member of the governing body of the University, and was for several years Professor of Materia Medica and Therapeutics in the Medical Faculty. He took an active part in public matters, and was at one time Mayor of the city of Kingston. He always took a very great interest in higher medical education in Canada. His death is a severe loss for Queen's University, the city of Kingston, and also the Dominion of Canada.

## Book Reviews.

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**Chemical and Microscopical Diagnosis.** BY FRANCIS CARTER WOOD, M.D., Adjunct Professor of Clinical Pathology, College of Physicians and Surgeons, Columbia University, New York; Pathologist to St Luke's Hospital, New York. With one hundred and eighty-eight illustrations in the text and nine colored plates. Cloth, \$5.00; Half Leather, \$5.50. New York and London: D. Appleton & Company. Toronto: Morang & Company.

The up-to-date practitioner of the present day is distinguished from his predecessor of twenty years ago by the fact that he applies the results of modern researches on the blood, sputum, urine, and other secretions and excretions of the body to the solution of his problems of diagnosis. Just inasmuch as he uses these methods intelligently and carefully is he superior to other practitioners who employ only the older means of physical diagnosis.

It has been shown that a considerable number of cases which were supposed to have typhoid fever, with rapid and progressive anemia, had an entirely different disease, acute lymphatic leukemia, a diagnosis of which can be made only by an examination of the blood. Again, an operation is occasionally performed for the removal of tumors of the abdominal cavity, when, if the blood had been examined, the patient would not have been subjected to the shock and danger of an operation. Such patients may be the subjects of myelogenous leukemia, and an operation under these conditions is unjustifiable. Again, the question of testing for albumin in the urine, is of the greatest importance in connection with the question of life insurance, and also with the problem of early diagnosis of chronic nephritis at a stage at which the disease can be improved by treatment.

So, too, the identification of the different sugars in the urine, upon which special stress has been laid, enables the practitioner to distinguish between true diabetes and the alimentary melliturias, the latter being of importance from a dietary point of view, but not of bad prognostic import.

The study of sputum may enable the practitioner who employs suitable staining methods to diagnose tuberculosis before changes in the lungs sufficient to give rise to physical signs make their appearance, and thus the patient gains six months or a year at a period when climatic treatment is most useful.

The diagnosis of carcinoma of the stomach is often impossible by the ordinary means employed in physical diagnosis. Analysis of the gastric juice, however, frequently enables the surgeon to obtain such strong diagnostic hints of the condition involving the stomach that an operation is warranted. Such

operations are the only successful ones, for when a tumor can be palpated the patient is beyond the reach of a radical cure.

The new text-book by Prof. Francis Carter Wood, of Columbia University, has been prepared with special attention to the needs of the practical clinician. It is the result of a good many years of teaching and laboratory work in Columbia and in one of the largest hospitals in New York City.

The section on the examination of the blood, which is one of the most difficult for the practitioner to master, without direct laboratory teaching, has been made especially full, and, owing to the liberality of the publishers, a series of light-colored plates has been introduced into the text, the drawings being made by the author directly from the specimens as stained for routine examination. The practitioner, therefore, has an atlas of the diseases of the blood, such as is given in no other published work. Besides these, the text has been embellished with numerous photographs of blood, taken from various diseases in which the morphological findings are most important. The practitioner sees before him the exact picture which he would see through the microscope, the plates being entirely untouched and representing naturally the exact conditions which they are intended to illustrate. Great stress is laid upon the practical details of blood counting, estimation of hemoglobin and also on the testing of blood stains for the various blood pigments, while throughout the book the various tests for blood in the different excretions have been carefully amplified, with special directions for stomach contents and feces. Wood's *Chemical and Microscopical Diagnosis* devotes a very considerable space to the discussion of the blood findings in disease. The different anemias are classified and the morphological changes which are found are discussed in detail. Special stress is laid upon the changes in the blood in surgical conditions, in anemia in children, and in the obscure types of blood diseases intermediate between anemia and leukemia.

The section on Parasites is very fully illustrated and is thoroughly up to date, many illustrations being from photographs and drawings of specimens in the author's collection.

Under Sputum we may call attention to the completeness with which the methods of demonstration of the tubercle bacillus under various conditions are emphasized and described.

The chapter on Urine is one of the largest in the book, and contains much that is new and not to be found in other text-books of clinical diagnosis. The needs of the practitioner are consulted. An especial feature is the introduction of a number of pages giving the reaction of drugs when they appear in the urine. The reactions of iodine in the urine are also given in full and likewise those for mercury, the detection of the latter

being especially important in connection with the treatment of syphilis.

Casts and crystals in the urine are illustrated by many photographs, as are the various other deposits found in that fluid.

A section is devoted to the results of recent methods of determining the functional efficiency of the kidneys from the point of view of surgical diagnosis. The only text-book which treats this subject fully is one translated from the German and now some four years old. The advances in these four years are fully presented by the writer.

Recent progress in infant feeding was largely developed, by the study and analysis of the relation of human and cow milk. The methods of analysis of both fluids are fully given.

An appendix has been added containing full directions for the making of staining fluids, the care and purchase of apparatus, the necessary reagents, the preparation of normal solutions, the clearing of slides and cover glasses and the removing of dyes from the hands, thus completing a very practical book.

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**Eye, Ear, Nose, and Throat Nursing.** BY A. EDWARD DAVIS, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and BEAMAN DOUGLASS, M.D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital. With 32 illustrations. Pages xvi-318. Size, 5½ x 7½ inches. Extra cloth. Price, \$1.25 net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

This is a book which should be in the hands of all who have, or may have, to nurse a case of eye, ear, nose or throat trouble. It should be carefully read and studied from cover to cover. Not only would nurses find it invaluable, but students and general practitioners as well. For, away from the large centres, the family physician often has not only to operate, but to give full directions to the nurse as well. The book covers the ground fully, its directions are clear and practical, and it gives a mass of information difficult to obtain in any other way.

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**Malformations of the Genital Organs of Woman.** BY CHAS. DEBIERRE, Professor of Anatomy in the Medical Faculty at Lille. With 85 illustrations. Translated by J. HENRY C. SIMES, M.D., Emeritus Professor of Genito-Urinary and Venereal Diseases in the Philadelphia Polyclinic. Philadelphia, Pa. P. Blakiston's Son & Company, 1012 Walnut Street. 1905. Price, \$1.50 net.

This is an admirable little book, containing in the early chapters a full account of the anatomy and development of the genital organs, while the later chapters contain minute descriptions of the various malformations and anomalies of the same. The translation, which has been made by J. Henry C. Simes, of Philadelphia, with the consent of Dr. Debierre, the author, is in all respects satisfactory.



**Modern Clinical Medicine.**

D. Appleton & Company expect to publish at short intervals a translation of "Die Deutsche Klinik," a publication which is being brought out in parts in the German language. The articles upon the various diseases have been written by the most eminent men in Germany. Professors Leyden and Klemperer are the editors of the German work, and the articles are written by such well-known authorities as Leube, Ewald, Boas, Baginsky, Liebermeister, Eichhorst, Strumpell, Jürgenes, Ehrlich, Grawitz, Binz, Nothnagel, Gerhardt, Loeffler, Krafft-Ebing, Hoffa, Ortner, Kaposi, and many others whose names are as familiar to you as the above-mentioned.

It is the plan to publish this work in several volumes, the entire work to be translated and edited under the general supervision of Dr. Julius L. Salinger, of Philadelphia, Pa. Each volume in the series will have a special editor.

The first volume of "Modern Clinical Medicine," "Infectious Diseases," will be published on the 3rd of May, 1905. This volume will be edited, with annotations, by Dr. J. C. Wilson, Professor of Medicine, at the Jefferson Medical College, Philadelphia, Pa. The second volume, which will appear shortly after the first, will consist of "Constitutional Diseases and Diseases of the Blood."

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**The Eye, Mind, Energy and Matter.** BY CHALMERS PRENTICE, M.D., Chicago.  
Published by the Author.

This is an original book. Its basic idea is the relief of eye-strain. Hailing from the West, one expects to find in it advanced ideas. Some of the ideas are so far in advance of what is generally held that many will not accept them. For instance, eye-strain is indicated as a cause for diabetes. In fevers, the author claims to be able always to lower the temperature by proper glasses. By relieving brain-strain, it would seem that he can prevent many cases of heart failure and apoplexy. He claims to benefit consumptives—and he can positively cure drunkenness, his words being "the latest discovery of its cure by the use of eye-glasses." It will be news, also, to most anatomists, that the centre for convergence of the eyes is "in the 3rd ventricle" (page 27).

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Morang & Co., Toronto, announce a new work on Obstetrics, by Dr. Adam H. Wright, Professor of Obstetrics, University of Toronto.

## Miscellaneous.

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### THE TREATMENT OF MENSTRUAL DISORDERS WITH SPECIAL REFERENCE TO CASES IN WOMEN SUFFERING FROM MENTAL DISEASES.

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The connection between disorders of menstruation and disorders of the brain and nervous system has long been an established fact. The dependence of the psychic functions of women upon the menstrual function, the effects of the menopause upon mentality, are all subjects that have received the attention of clinicians for many years. It is a well-known fact, correlated to the peculiar connection between the mind and sexual apparatus, that amenorrhea is not infrequently met with in the insane. The problem as to how to treat insanity is one of the most difficult in therapeutics; and in the modern conception of this treatment all agents that tend directly or indirectly to further the equilibration of the mental functions have a legitimate place.

One of the most difficult phases of this problem is the treatment of the menstrual disorders in insane women, and the importance of correcting any such disorders in this class of patients is realized by all who are aware of the fact noted by numerous clinicians, that the improvement of the menstrual function leads to a marked amelioration in the mentality of these patients in very many instances.

In an institution like the hospital with which I am connected, we naturally come face to face frequently enough with the question of treating the amenorrhea that is noted as an accompaniment of mental disease, and for a long time I have been experimenting with various therapeutic agents recommended for the treatment of menstrual disorders without obtaining perfect satisfaction from any, until I tried the method of treatment which I am about to describe.

What I was looking for was a safe and efficient emmenagogue, which gave positive results in cases of amenorrhea, dysmenorrhea, and suppressed menstruation, without either exciting or depressing the patient, without causing any disturbances on the part of the digestive tract, or the urinary tract, such as are met with in the use of most of the remedies classed as emmenagogues.

I knew that Apiol, the active principle of *Apium petroselinum*, Linne (Parsley), was a substance that had been long known to possess marked emmenagogue properties, but that had not been used extensively in this country on account of certain after-effects connected with its administration. On investigation, I found that Apiol was first isolated by Joret and Homolle in 1855, and was at first recommended for malaria, as a substitute for that specific of specifics—quinine. Later its emmenagogue virtues became known, but it found far less favor in this country than in France, the American physicians being especially prone to reject any remedy that has disagreeable after-effects. Apiol seemed to me the ideal emmenagogue, and I was even tempted to try it, although I had some fears about the effects of its irritant action, when I came across a statement in an article on the subject, to the effect that the Apiol of the market, no matter where purchased, was full of a series of impurities, and that the bad after-effects of this drug were due to these impure elements.

The ordinary Apiol of commerce, it seemed, was simply a mixture of impure principles obtained from parsley by extraction. The question was, therefore, to obtain a preparation of Apiol without the impurities that do the harmful work of the ordinary preparation. A number of chemists in various countries have tried to purify Apiol with varying success, but finally, within the last few years, a pure product was obtained. It seems that the preparation which contains the purest product obtainable, which was prepared by the new process mentioned, is a pharmaceutical compound known as *Ergo-Apiol* (Smith). Seeking, as I said, a preparation of Apiol which would give satisfactory results in amenorrhea, dysmenorrhea, and suppressed menstruation, especially in the insane, and that would not produce any undesirable after-effects, I determined to try *Ergo-Apiol* (Smith), a liquid substance dispensed in gelatin capsules, which contains the pure Apiol described above, and in addition a combination of emmenagogues that immediately appealed to me as calculated to enhance the efficiency of the whole remedy, namely, ergot of rye, oil of savin and aloin.

I selected a series of cases in the hospital, each of which was characterized by a more or less pronounced menstrual disorder of some standing, and administered no other medication for the treatment of the disordered menstruation than *Ergo-Apiol*. I cite, in illustration, three cases in which the remedy in question was employed. They are only examples of the experience I had with it.

CASE I.—Miss V. F. Aged twenty-one years. Was admitted June, 1901. She said that she had not menstruated for a year.

and attributed her suffering in body and mind to this fact. She was despondent, and on the verge of committing suicide. The reflex efforts of the uterine disturbance were also manifested by the derangement of function in nearly all the organs. There was entire loss of appetite and a practical cessation of digestion, accompanied by pain after eating. In October, 1901, I began to give her two capsules of Ergo-Apiol (Smith) three times a day until after her expected periods, without any effect. During the month of November I gave her two capsules three times a day, and continued the treatment until December 12th, 1901, when her menstruation returned in a perfectly normal manner. No unpleasant after-effects whatever were noted at any time during this treatment. She improved both mentally and physically during the time of taking this emmenagogue, and her condition was so remarkably ameliorated that she was discharged cured when the menstrual function had been re-established.

CASE II.—Miss M. B. S. Aged twenty-four years. Has been suffering from amenorrhea for a year, which persisted in spite of all treatment. She was melancholy, and had a very poor appetite and other disturbances due to her suppressed menstruation. In November, 1901, I began giving her two capsules of Ergo-Apiol (Smith) three times a day. I continued this treatment without any appreciable effect, except that the patient seemed to feel more comfortable, and at times during the month she experienced the subjective sensations accompanying the onset of menstruation. Finally, her menses returned on April 21st, 1902. The menstruation was perfectly normal. One week before the next succeeding period I gave her two capsules of Ergo-Apiol (Smith) three times a day, and when the time came for the onset of the flow it appeared in a normal manner. The remedy was continued in doses of one capsule three times a day while the flow lasted. Since the re-establishment of her normal function the patient has gained both mentally and physically, and regained her mental balance and her usual cheerfulness, so that she was discharged cured.

CASE III.—Miss L. D. C. Aged fifteen years. A girl of fine physique, who had first menstruated at the age of nine years, but always very irregularly. The menstruation disappeared for a year and then returned. When admitted she was very irregular with a scanty flow that lasted but one day, and was accompanied by severe pain in the head, loins and pelvis. A week before her expected period in January, 1902, I began giving her one capsule of Ergo-Apiol (Smith) three times a day. At the end of one week her menstruation returned, and lasted four days, the flow being normal in amount and accompanied by very little pain. The same treatment was

pursued in February, with similar good results, and from that time on the function was fully established and remained so. There was a marked improvement in both physical and mental condition, and she was discharged from the hospital cured.

From my experience with Ergo-Apiol (Smith) and from the experience of a number of other observers, whose findings are published in the literature of the past few years, this remedy represents an emmenagogue of the highest type of efficiency combined with the inestimable advantages of safety, trustworthiness and absence of any unpleasant after-effects. It is probable that Ergo-Apiol owes its efficiency to the particular type of Apiol that it contains, the pure product from which all irritating and injurious impurities have been removed. But it is unquestionably also the accessory remedies, which enter into the combination that contribute to the efficiency of the whole. Ergo-Apiol was easily and agreeably taken by all the patients to whom I administered it, and in no case was there any nausea, eructation, or any other gastric disturbance. Unlike most other emmenagogues, it requires only small doses continued for a comparatively short time to bring about the desired therapeutic effects. Ergo-Apiol (Smith) has not only a stimulating effect upon the menstrual function in amenorrhœa, but also a tonic effect upon the muscle fibres of the uterus, for after it has been administered for a few months, the uterus is almost always able to resume its function without any further aid from external sources.

In conclusion, I may note the fact that the treatment of amenorrhœa in the insane is always a matter of greater difficulty than in persons with normal minds, and that a remedy that produces perfect therapeutic results, such as I have noted with Ergo-Apiol (Smith) in insane women, may be expected to perform the same services even more promptly in the average case of amenorrhœa as met with in ordinary family practice. This is proved conclusively in the numerous cases reported by various observers who employed Ergo-Apiol (Smith) in menstrual disorders, and a partial list of whose publications appear in the annexed bibliography. Ergo-Apiol in the shape of capsules administered three times daily in doses of one or two, beginning a little before the expected menses, and continuing through the period, has proven the most efficient, prompt, safe and pleasant emmenagogue that I have ever employed. My experience with the drug was such as to lead me to adopt it as a routine treatment in amenorrhœa.