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Original Communications.

A PLEA FOR THE VOLUNTARY ADMISSION OF CERTAIN TYPES OF INSANITY TO INSTI- TUTIONS FOR THE INSANE.*

BY JAMES RUSSELL, M.D.,
Asylum for Insane, Hamilton.

I offer no apology for the plea that I am about to make before this association for the voluntary admission of certain types of insanity to institutions for the insane. Neither do I make any claim to originality in presenting the claims of a numerous class of mental sufferers before such a jury of experts in mental science. The verdict will, of course, be in proportion to the justice of the cause and the ability of the advocate in presenting the claim. Should I fail, it will not be the first time a good cause has suffered on account of a badly prepared case and an imperfect presentation of the facts.

I have been induced to prepare this paper largely because of an experience I have had during the past year with a prominent gentleman who voluntarily entered the institution over which I have the honor to preside. It was a great source of comfort to this gentleman, and his friends as well, that he was spared the humiliation of being examined and certified as a lunatic before gaining admission to the institution. It was a further source of satisfaction that he was admitted for treatment to an isolated hospital proper, and was not compelled to mingle with the ordinary rank and file of patients which constitute the population of a large Provincial or State institution for the insane. I was so profoundly impressed with this experiment

*Read before the American Medico-Psychological Association at St. Louis, May 28th, 1904

that it occurred to me we had at last found a clue by which we might popularize our institutions with the public, and gradually root out that prejudice which has so long dominated the public mind.

It cannot be denied that a tremendous advance has been made in the care and treatment of the insane, but it is just possible we may be too easily satisfied with past achievement and decide that the field of progress has been sufficiently exploited and that there is nothing more to be done. I need not say that such a decision is not in keeping with the spirit of the age. In whatever direction we turn, the great moral and scientific forces are bristling with effort for the uplifting of humanity and the amelioration of the condition of those on whom the heavy hand of affliction has fallen. Speaking from the ethical side of life, the one outstanding thing that distinguishes the present from the past is the sacredness of human life and the many agencies at work for its perpetuation and the advancement of human happiness.

As psychologists, and therefore co-workers in the field of mental and moral science, we may fairly claim to occupy a prominent part in ameliorating the sorrows and easing the burdens of suffering humanity. Whether or not we are keeping pace with the sister sciences, which are propelling forward at such a rapid pace the great civilizing forces that are yet to emancipate humanity from the ignorance and superstition of the past, is an open question. It occurs to me we have not done all we should have done to win popular confidence in our methods for the prevention of insanity, and especially in the treatment of incipient cases.

INCIPIENT INSANITY.

The plea which I set up as the subject of this paper is on behalf of incipient insanity, which includes a large class of neurotics under the head of neurasthenia. Many of these cases are on the dangerous borderland of insanity, and if not properly cared for they drift across the Rubicon of hope and go to swell the maddening throng of acute and chronic cases in one of the State institutions.

It may be interesting to glance for a moment at the disintegrating social forces at work producing this peculiar type of mental alienation, and how it may be averted. The restless spirit of the age, with its intense competition in every department of business and professional life, the mad struggle for wealth, place and power, with an ever-increasing mental tension, are responsible for a large increase of nervous disorders which are sapping the energies of the present generation. That this weakening force will project itself into future generations with

increasing effect is all too evident. Among women with a more delicate nervous organization this effect is even more apparent. The struggle to keep up appearance and win social recognition, along with artificial and extravagant modes of living, are responsible for many neurotic conditions bordering on insanity.

It is said on the highest authority of Americans themselves, that the original type of American is now extinct through a process of race suicide, the outcome of modern methods of living. It is said that a new race is being evolved, a more highly organized nervous type, bristling with energy and worshipping at the shrine of "Mammon." What the outcome of this enormous expenditure of nervous energy will be on the generations yet unborn is for the scientist and philosopher to determine. As alienists, charged with the mental health of the nation, have we no counsel to administer, no arm outstretched to save, no balm in Gilead to heal? Unfortunately, advice and warning are largely thrown away under these conditions. It is only sad and bitter experience, which often comes too late, that is of any avail.

POPULAR PREJUDICE.

Disguise it as we may, there is still a foolish prejudice in the public mind against institutions for the insane. Insanity in the family is looked upon as a badge of mental and social inferiority, and all sorts of devices are resorted to in order to prevent its detection.

The disease is supposed to be largely incurable, and its hereditary transmission in families tends to exclude them from desired matrimonial alliances as well as many positions of trust.

It is certainly not the business of the profession to minimize the danger of hereditary transmission, but rather to educate the public to a knowledge of those physiological laws of cross-breeding with sound stock which make for the dilution and final extinction of the insane diathesis. It is our duty to teach the public that insanity is curable like other diseases, and is successful in proportion as it is treated in the incipient stage. Like every other disease it has its origin in the violation of natural law, and may be either transmitted or acquired, or both together. It is only by popular education, side by side with tangible evidence of the good work achieved, that we can convince the public that our institutions are something more than a great Valhalla for the reception of the mentally dead.

In this country an effort has been made to break down this prejudice by abolishing the name "asylum" and substituting for it the name "hospital." The motive is a worthy one; but experience proves that to merely juggle with a name will not conquer a rooted prejudice, the growth of centuries. It is by

deeds and not words our popularity must come. "By their fruits ye shall know them."

The ordinary citizen who visits one of our large State or Provincial institutions, with its hundreds of able-bodied men and women in the various stages of mental vacuity, is certainly not forcibly struck with the "hospital" idea. From the similarity of the patients, their dress, manner and general demeanor, the visitor is at once impressed with the pauper idea of custodial care and hopelessness of recovery. He is apt to regard them as simply the driftwood of society that have been wrecked on the ocean of life, that have failed to adjust themselves to social conditions, and become a burden, first, upon their friends, and secondly, upon the State. In general terms that is the way our institutions are viewed by the general public.

To the hospital physician the query presents itself, Why are these people not cured? The question is rather a puzzling one from the "hospital" standpoint. Then why call it a "hospital" if it is not discharging the function of a hospital? We may as well admit that the "hospital" function applies only to a small minority of the inmates, but is capable of much greater elaboration if conducted along scientific lines in the treatment of incipient and acute cases.

Speaking from the etiological standpoint there is really no parallel between abnormal mental phenomena and physical disease in a large proportion of cases. In the one there is a constant tendency to chronicity and recurrence, the result of hereditary transmission, while there may be no pathological cause whatever.

It is true we have the toxic or infective type, as in syphilis and alcohol, with a pathological, cellular degeneration, but these form a small minority of the whole. There may be anatomical or histological defects, but that is congenital and not amenable to treatment: and this is the reason why our institutions are crowded to the doors with chronic cases which require simply custodial care. Again, a large proportion of cases have reached the chronic stage before admission, with all hope of recovery gone. It becomes us then to educate the public to the necessity of early treatment. How is this to be done? We can, at least, simplify the method of admission in all incipient and acute cases.

VOLUNTARY ADMISSION.

Comparing the asylum with the hospital, a wide gulf separates them in the mode of admitting patients. In the one case the applicant has to undergo a medical examination by two physicians, and is lucky if he has not to appear before a bench

of magistrates and judges also before he fulfils all the requirements of law. In order to further humiliate him he may be forced to spend a few weeks in gaol in the company of criminals, not because he has committed any crime, but for safe keeping until the formalities of the law have been complied with. Again, the moment the poor victim enters the portals of an asylum he is divested of all civil and political rights, and becomes a dead man in the eyes of the law and a ward of the State. Is it any wonder, in view of the rigorous method of admission, that the people postpone the ordeal as long as possible, and only consent under the direst necessity?

There are many incipient cases not altogether *non compos mentis* who dread the idea of being examined and certified as lunatics. Many of this class would gladly avail themselves of institution treatment if they were spared the ordeal of certification and allowed to voluntarily enter a separate building or cottage for treatment.

We know that too often commitment to an asylum carries with it a badge of social degradation which haunts the poor victim through life, and too often the public are ready to endorse his morbid introspection and loss of social caste. He is looked upon as a dead branch of the family tree, and it may be evidence of further decay in other branches of the same tree.

In Great Britain this question is occupying a large amount of attention, and an agitation is on foot for further legislation looking to the relief of this class, by granting licenses to private houses, nursing homes, and private asylums, for the treatment of certain types of insanity, by voluntary admission. This is practically a boarding-out system for the well-to-do classes, in charge of physicians and nurses trained to the work. It is evidence of a desire to avoid going to a public institution, with all that it implies. It is further evidence of a desire to receive special treatment as against congregate treatment in the public wards of an institution.

Few of our large state institutions are sufficiently equipped with scientific apparatus for conducting the best therapeutic methods in the treatment of even the acute and curable cases. Newly admitted cases are thrust in among the common herd, and too often lose their mental identity amid the general throng. One has only to pass through the crowded wards and witness the mental and physical inertia to be convinced of the utter barrenness of the mental therapy employed for the implanting even the smallest germ of mental reconstruction. Surely it is a mockery of words to call this hospital treatment.

What is the remedy for this condition of things? How are we to cope with this surging mass of insanity? What methods should we adopt to increase the recovery rate, and at the same

time lessen the ranks of the chronic cases which vegetate from year to year on the downward grade to hopeless dementia? Our hope lies in applying the best therapeutic treatment to newly-admitted cases. I do not presume to speak with the wisdom of a Solon upon a subject which many of you are more capable of discussing than myself, but in my mind there should be a large receiving hospital specially equipped with every psychopathic contrivance for the treatment of new cases. This equipment should include hydro and electro therapy, massage, physical drill, rest treatment, forced feeding, mental recreation, etc. It should also contain a laboratory for making the various blood tests, urinalysis, and also tests of the stomach and other digestive secretions. But not less important than all, it should have a well trained staff of physicians and nurses. The keynote to treatment should be a differentiated specialism suited to each case. In that way we shall have hospital treatment in fact, as well as in name.

Large discriminatory power should be given to superintendents permitting patients to enter voluntarily. A large class of neurotics go about from one sanitarium to another seeking relief which they cannot find. The ordinary physician prescribes travel, change of air and scene for these cases, but unless a proper selection of cases is made, they often return more jaded and worn than when they started. The rest treatment is more often indicated, and with proper medication and under hygienic conditions, is attended with better results than in travelling to and fro over the earth amid the bustle and excitement of modern life.

In Scotland, Dr. Clouston, of Morningside, is at the head of an agitation for the treatment of incipient and transient cases in an insane ward of a general hospital. Sir William Gowers is advocating another movement for individual care in private homes. The background of both movements is an effort to escape certification, and the stigma which attaches to incarceration in a public asylum. It will be interesting to watch the growth of this agitation in the Old Land, for I am sure it will find little support on this side of the Atlantic. To begin with, it is an attempt to protect the individual against a foolish, morbid prejudice, and at the same time place a further ban on the public institution whose function is to treat every form of mental alienation.

The treatment of any form of mental disorder in a general hospital is doomed to failure unless in charge of a mental expert and a staff of nurses trained to the work. We all know how panic-stricken and helpless the general hospital physician and his nurses are in the presence of a case of insanity, and how loudly they clamor for the removal of the case to the asylum.

It will be the same in private home care, except, perhaps, in very mild and harmless cases. To my mind the whole situation sums itself up as follows: Insanity can only be treated successfully in institutions appointed for the purpose, and officered by physicians and nurses specially trained for the work. All other methods are mere makeshifts, and will end in disappointment, and perhaps disaster.

In conclusion, we should make a strong effort to popularize our institutions by convincing the public that we can do much for them; that mental disease may be cured like physical disease, and the one may be concurrent with the other; that successful treatment will be largely in proportion to the early opportunity of dealing with it.

Many of the mental disorders are functional rather than organic, but with delay in treatment there is always a danger of the formation of a morbid brain habit, which tends to chronicity. Early removal from home environment is a *sine qua non* to successful treatment, where morbid habits of thought can be counteracted under the discipline of institutional life. There is little doubt that delay in early treatment is the chief reason why all our institutions for the insane are loaded up with such a mass of chronic cases that have passed beyond the region of hope.

Ample provision should be made for all ranks and conditions, with sufficient isolation and other comforts to meet the social requirements of each. The pathway to the institution should be made inviting, and all red tape formalities and other consumers of valuable time should be abolished. The doors should stand wide open for the admission of all incipient and acute cases, and no case should be allowed to reach the chronic stage until science and skill shall have exhausted their best resources.

THE USE OF INTOXICATING LIQUORS AND LIFE INSURANCE.*

BY T. MILLMAN, M.D.

Supreme Physician, Independent Order of Foresters, Toronto, Canada.

There have been many articles written concerning applicants for life insurance who have used or are using intoxicating liquors as a beverage. The subject is an important one, and this is my reason for taking up a short period of your time in touching upon it. I am afraid I have nothing new to offer, but as Examiners-in-Chief it is well to have this all-important question constantly before us.

We all know what care we take in sifting the family history where there is a suspicion of a tubercular tendency, what stress we put on weight, small chests, and how we guard against any applicant who has had a recent attack of pleurisy or pneumonia, or who gives a history of chronic cough, or spitting of blood.

We should be no less careful in analysing the habits of any applicant who states he drinks wine, spirits or malt liquors. It is claimed by many good authorities that the proportion of deaths as the result of alcohol, directly or indirectly, is as large as that resulting from tuberculosis. It is true that we receive very few death claims in which it is certified that the death was the result of alcohol, but we know too well that many of the diseases which are put down as the cause of death, were due in a large measure to the use of intoxicating liquors, such as Bright's disease, cirrhosis of the liver, pneumonia, heart disease, arterio-sclerosis, cancer of stomach, apoplexy, other nervous diseases as insanity, accidents, suicides, etc. A large percentage of the deaths from the above diseases are due more or less to the use of alcohol.

The question naturally arises, "How shall we deal with the applicants who admit using intoxicating liquors?" How much can a man drink and still be a safe insurance risk? Where is the line of demarcation? Is there any hard and fast rule for our guidance? These questions are not easily answered, in fact, cannot be answered so as to apply to all cases. Alcohol does not affect all men alike; some have a great tolerance for it, whereas others cannot take the smallest amount without having ill results. Sir Dyce Duckworth states that in some cases no matter how small a quantity is taken the alcohol proves a poison, the tissues being so sensitive to its influence. Evidently, each case has to stand on its own merits. Anstie puts down the physiological limit as one and a half ounces daily of pure

* Read at Annual Meeting of the National Fraternal Congress, held at St. Louis, Mo., September, 1901.

alcohol, in some form or other. In my judgment, this is too liberal an allowance, especially for those who are following sedentary occupations, such as being confined all day in stores, offices, etc.

A great deal depends again on how the above amount is taken. It certainly is much less harmful if taken with the meals, or immediately after; in this way, the alcohol is well mixed with the food and only comes in contact with the delicate membranes of the stomach in a very diluted form. It is well known that alcohol has a great affinity for water, and when it comes in contact with the cells of the body it absorbs the water in them and leaves the cells more or less contracted. One can therefore easily imagine the condition of the lining membrane of the stomach if a glass of pure or somewhat diluted spirits is taken while the stomach is empty. It is in a shrivelled or puckered condition and not in any way prepared to receive and digest a meal. No man should therefore be considered a desirable insurance risk who takes his glass before meals, more particularly before breakfast. I also have my misgivings about the man who takes his glass at bedtime. Apart from meals, it is a destroyer of arteries and a product of sclerosis of the connective tissues throughout the body. Even when taken with the meals and absorbed in the system with the food, alcohol still plays an important part. A certain amount can, according to many authorities, be safely taken and assimilated; with a continued slight excess beyond that amount as set forth by Sir Dyce Duckworth, damage is done, as the early aging of the person, premature decay of the vital powers, a tendency to obesity, vascular changes as small dilatation in the superficial vessels, progressive arterio-sclerosis long before the natural period in which senile decay may be expected. The hair whitens prematurely and the kidneys and liver are not infrequently involved in this sclerosis process. The above changes are occurring in many cases where parties honestly believe they are using alcohol in a very moderate and safe quantity. They appear to be ignorant of the unwholesome excess of alcoholic liquids they are consuming. If you were to sit down with one of these men and ask him, how much he takes daily, he would readily reply, "I take very little." Ask him to state the quantity he takes with each meal, the quantity he takes as a social glass with friends between meals, also the size of his "nip" at bed-time and possibly before breakfast, total the amount and I am satisfied he will be astonished at the quantity. Yet, these people are frequently successful business men, are looked up to and respected; and with the majority of medical examiners, insurance agents and organizers, are considered first-class insurance risks.

There is no doubt, that Medical Examiners-in-Chief are agreed on certain classes of men who use intoxicating liquors and who are not safe insurance risks and should always be rejected.

First,—The chronic, steady drinker to excess.

Second,—The man who gets intoxicated for two or three days, or longer, at a time and is quite abstemious in the intervals. The first named class, is constantly under the influence of alcohol. The tissues are saturated with same and are becoming more or less damaged. The second class is not so bad as the first, as to injuring the tissues of the body. Between the attacks of intoxication the tissues have an opportunity to recover themselves: but surely such men are not good risks while intoxicated, being subject to accidents, melancholia ending in suicide, attacks of apoplexy, etc., then why should we accept them knowing they will get intoxicated. Then, every time they become intoxicated there must be more or less damage to the tissues and this becomes more marked as time goes on.

We now come to the third class, and concerning it there may be a difference of opinion. Those who get intoxicated for a few hours, say three or four times a year, I am of the opinion should be rejected. Are they not exposed, like the former class, to accidents, etc., although to a less degree? Then again, is the habit not likely to grow more decided and many of them become as objectionable as those in the second class? Then, in societies like ours, should not the fraternal side be considered? Surely, such men are not a credit to any society, and discourage our best men from making application for membership.

We now come to the moderate drinker, who is considered a safe risk and who is looked upon as a temperate man. Are we all agreed on this class? To what extent can he indulge? A glass of wine, beer, or a pony of whisky with each meal may be all right, but beyond this I am inclined to reject. A glass between meals, as already stated, I object to. Whenever I know a man takes a glass before breakfast, I reject without hesitation. We reject hotel-keepers, bar-tenders, brewers, etc., just on account of their frequent indulgences and their surroundings. They may not get intoxicated, but the system is seldom free from the seductive beverage.

Now, we come to the total abstainers. What about them? We might divide them into two classes. First, those who have indulged too freely in the past, reformed and have become total abstainers. I have very little use for these as insurance risks. The so called cures are a myth in a large percentage of cases. Some claim it is safe to accept them after five years of total abstinence. I prefer ten, and then only in certain cases.

Second, those who have been total abstainers all their lives are, in the estimation of the majority, ideal risks, although there are good authorities, as Sir Dyce Duckworth, who state that men who take their glass quite moderately are better risks than the total abstainers. Sir Dyce adheres to this in spite of statistics to the contrary. One writer maintains, "If total abstainers live longer than those who drink moderately, that it is not due to the non-use of alcohol, but that it is due to their constitution and nervous make-up. While they are less tempted to indulge in alcoholic liquors, they are less exposed to other factors that lead to early death." He continues: "It is well known that the improvident neurotics and defectives generally are more addicted to the use of alcohol than are the strong and robust and the self-centred," and he concludes, "that the statistics so far as they go, show that the use of alcohol is a valuable index of these other conditions, and not that its use in moderation tends directly to shorten life, at least not to the extent shown by figures." He admits that total abstainers live longer than the non-abstainers owing to the poorer make-up of the latter and that their earlier death is not due to the alcohol they consume. Then, the use or non-use of alcohol becomes a valuable symptom in determining who are safe risks for life insurance.

Until lately, there have been no reliable statistics showing whether total abstainers or moderate non-abstainers live longer. A very valuable report was issued in the early part of the present year by Thomas W. Whittaker, M.P., Chairman and Managing Director of the United Kingdom Temperance and General Provident Institution, giving the experience of that Company. On the first page of said report, we find that in 1839 a declaration signed by the leading physicians of that time stated, that "the most perfect health is compatible with total abstinence from all intoxicating beverages." In 1847 another declaration as follows: "Total and universal abstinence from alcoholic liquors and beverages of all sorts would greatly contribute to the health of the human race." The above Institution now produces statistics showing that those declarations were well founded; that total abstainers live considerably longer than the moderate non-abstainers. In preparing said statistics, they took those policies payable only on the death of the assured and were issued at ordinary rates on the lives of men who were in sound health at the time of assurance. These cover a period between the years 1841 and 1901 inclusive, namely, sixty-one years. Of these, there were in the General, or Non-abstaining Section, 31,776. They passed through 466,943 years of life, and amongst them there were 8,947 deaths. In the Temperance or Abstaining Section there

were 29,094 policies, passing through 398,010 years of life, with 5,124 deaths. Had the mortality in the latter Section been at the same rate as in the former Section, the deaths would have been 6,959, or 1,835 more than they really were; that is to say, the mortality in the General Section was, on the average, 36 per cent. higher than in the Temperance Section. The above figures refer only to those who were continuously in the Section they first entered, and does not include those who were afterwards transferred from one Section to the other. The transfers during the sixty years, however, were only about 5 per cent.

Another table is presented: "Roughly speaking, the effect of medical selection largely disappears in five years. Consequently, by omitting the first five years of assurance from our observations, we practically exclude any advantage which might accrue to one of the Sections, if there were in it a large number of recent assurances—that is, more recently selected lives—than in the other." The report adds: "It will be observed that during the strenuous working years of manhood, from twenty-five to sixty years of age, the annual mortality rates among the Abstainers were, on the average, 40 per cent. lower than among the Non-Abstainers. This is an enormous difference."

The question may be asked: "Are the non-abstainers assured in that Institution good average assurable lives? Are they as sober, as healthy, and as long-lived as the average of those lives which are assured in the other life offices whose mortality experience furnishes the data upon which the Life Assurance business of the country is conducted?" In this General Section, the mortality is about $5\frac{1}{2}$ per cent. less than was to be expected by the Hm. Tables, or less than half per cent. more than the expectation according to the Om. Tables. It is thus seen that the General Section consists of good average assured lives. The mortality of the Temperance Section during the sixty-one years was 30 per cent. lower than that shown by the Hm. Tables, and 25 per cent. lower than that shown by the Om. Tables.

The social and financial standing of the risks in the two sections were practically the same.

There are many other points of value and interest in the report, but I must not make this paper longer by more quotations. The above report should certainly be in the hands of each of us; it was published in the *Contemporary Review* for March, 1904. I agree with the conclusions of the report that total abstinence tends to prolong life. Other Institutions have had the same experience; for instance, the Scottish Temperance-Life Assurance Company, Sceptre Life Association of England,

the Mutual Life Insurance Company of New York, and the Manufacturers Life Insurance Company, Toronto, Canada.

My deductions are as follows:

1. That total abstainers, all other things being equal, are decidedly the best risks for life insurance.

2. That we are justified in accepting applicants who confine themselves to a glass of beer, or wine, or a small glass (pony) of whisky with each meal.

3. That those applicants who take the above with each meal and in addition, one or two glasses between meals, should pay extra rates, if accepted. My impression is that they should not be accepted. There is always the danger that the habit will become more decided as time goes on. As before stated, alcohol has a strong affinity for water and when taken on an empty stomach, causes thirst, and there is a desire for more, and unless the man has a strong will, he is inclined to gratify this thirst.

4. Those who get intoxicated for a few hours three or four times a year, should in my opinion also be rejected, as the habit is apt to increase, but if accepted they should pay extra rates.

5. If more is consumed than in deduction "3," or if intoxication is more frequent and of longer duration than in deduction "4," I believe you will all agree with me, that they should be rejected.

6. We should, as far as possible, educate the officers and members of our Lodges to be very careful in soliciting applicants who use intoxicating liquors; and strongly impress on the minds of our local medical examiners the importance of carefully analyzing the habit of each applicant in respect to the use of intoxicating liquors. They should not simply take the statement of the applicant, but with tact find out just how much wine, beer and spirits he takes daily and at what hours of the day.

7. As alcohol when taken to excess damages the cells and tissues of the body, we should exercise care in acting on examination papers of applicants who state that one, or other, or both of their parents were addicted to alcoholic excesses. The reproductive germs are damaged, and the health of the offspring bodily and mentally must be impaired. As a rule, they are not long lived, and many of our criminals, idiots, etc., come from this class.

In preparing the above paper I have been much indebted to the authors of papers published during the last few years in the *Medical Examiner and Practitioner* of New York, and also as before stated, to the report of the "United Kingdom Temperance and General Provident Institution," of Eng and.

THE OPERATIVE TREATMENT OF SPINA BIFIDA.*

BY E. R. SECORD, M.D., BRANTFORD.

The comparatively frequent occurrence of spina bifida (it is found, roughly speaking, somewhat more frequently than once in every thousand births), its hopeless prognosis unless suitably treated, and the oft-times favorable results to be attained by such suitable treatment, have led the writer to bring forward the following facts for consideration and, I trust, discussion.

Leaving aside for the present any reference to the exact frequency of occurrence, to the etiology, to the anatomical conditions, to the symptoms and to the prognosis, my remarks will be confined almost entirely to the question, "Given a case of spina bifida, what treatment will in the majority of cases bring about the best result?"

In 1885 a special committee of the London Clinical Society appointed to consider the various methods in vogue for the treatment of spina bifida, reported (1) in favor of the method by injection of Morton's fluid. Their report was based on seventy-one collected cases treated by this method, of which thirty-five recovered, twenty-seven died, four were relieved and five unrelieved.

Writing in 1902, Mr. W. H. A. Jacobson, of Guy's Hospital (2) says in this connection: "Excision of the sac is the method which I recommend, and which in spite of certain grave dangers promotes, I think, the best results in carefully selected cases." Excision of the sac is defined by Van Buren Knott (3) as meaning "the removal of the excessive skin and meningeal membranes, the separation of the nerves, if present, from the sac wall and their restoration to the spinal canal."

I have quoted Mr. Jacobson's opinion as being that of a fairly conservative and well-recognized surgical authority, and it is very interesting and instructive reading to follow the literature of this subject during the seventeen years intervening between the dates above mentioned, and to see the pendulum of surgical opinion slowly but steadily swing round until Mr. Jacobson's words practically voice the ideas of modern day surgeons.

As illustrative of the higher class of surgical opinion at the beginning of this period, I may quote two well-known men:

1. Sir Frederick Treves (4) in 1884 wrote regarding excision: "If the sac contains cord elements the result will prove fatal; if not, success may possibly follow."

2. In 1887 Robert W. Lovett (5) wrote: "In considering operative procedures for the removal of the tumors one fact is

*Read at meeting of Canadian Medical Association.

self-evident, that such operations are only applicable in cases where it is definitely determined that the cord is not present in the sac, and that of course restricts the field very much."

He further says: "If Morton's injection fails, and it seems reasonably sure that the cord is not present in the sac, a simple excision of the tumor should be done. If there is reason to suspect the presence of the cord in the sac, excision is of course out of the question, and the case must be left to itself."

Viewing the matter in the light of subsequent experience and teaching, it is difficult to comprehend how such a position should have been considered tenable. On the one hand, in the case of the simple cases where the cord is not present, he speaks of a simple excision of the tumor, and on the other, in the complicated cases he speaks in the following by no means sanguine terms of the treatment by injection: "It is generally accepted that the presence of the cord in the sac, when it can be definitely established, though not a positive contra-indication to treatment by injection, renders its utility somewhat questionable, and adds to its danger." Why then use the injection method at all?

Treves' opinion on this point was, "That he was aware of no case of cure from iodine injection, where it was definitely proved that a free communication existed between the interior of the sac and the spinal canal, that could not be even temporarily cut off, and where at the same time the cyst contained the cord or some considerable portion of it."

Once more it may be asked, where then were the arguments in favor of Morton's method? The London Clinical Society figures in themselves showed a better mortality rate from operative measures (twenty-three cases, sixteen recoveries, seven deaths) than from injection (seventy-one cases, thirty-five recoveries, twenty-seven deaths), but this is got over by Lovett by remarking that "the cases were probably very carefully selected." Judging from his remarks quoted above regarding the dangers of the injection treatment in the complicated cases, it is very probable that the cases for treatment by Morton's fluid were just as carefully selected. Under any circumstances it is fair to conclude that the cases most suited to treatment by Morton's injection are the simple meningoceles, the very cases in which Behrend (6) speaks of excision as the simplest of operations. Lovett argued that successful cases of treatment by injection were constantly being reported in the journals. The probability is that the unsuccessful cases were not reported; since Paul F. Eve, nineteen years later, in the second edition of the same work (7) says: "This treatment (by injection), however, is very unsatisfactory, as the majority of cases thus treated prove. On account of the many fatal terminations which have occurred as a result of this mode of treatment, a complete excision of the

sac has been resorted to." Referring now to personal experience, I may say that in 1898 I saw an apparently uncomplicated meningocele treated by injection of iodine, which latter was immediately followed by convulsions and death.

As far back as April, 1880, W. H. Fitch (8) reported a successful operated case in the following words: "It is hardly necessary to say that in this case excision of a spina bifida was not premeditated. It was situated in the lumbar region, was 2½ inches by 1½ inches in size, and presented none of the usual signs of the disease. The excision, however, was complete, and after the loss of much cerebro-spinal fluid the wound healed gradually and the child was cured."

In 1889 the *Journal of the American Medical Association*, remarked editorially (9), that the testimony of recent operators seemed to indicate three pretty clearly defined facts:

1. That the escape of a considerable quantity of fluid from the sac is not necessarily attended by dangerous sequelae.

2. That there is less danger from injury to the nerve structures than has been believed.

3. That many of the injurious results of former operations were doubtless due to lack of proper precautions relative to the prevention of sepsis.

In the *Archives of Pediatrics* for the same year, appeared (10) two articles, the one discussing the question as to the possibility of the successful operative removal of a spina bifida, and the other reporting a successful operated case.

The operative treatment being thus placed on at least a justifiable basis, in subsequent discussions and case reports more attention is paid to the methods of operating than to a justification of the operation.

Apparently the dangers incurred by the use of an open incision, owing to the always present chance of sepsis, deterred operators for the next few years from using this method. Thus in 1891, F. A. Harris, M.D. (11) reported the case of a child five days old with apparently a lumbar meningocele, where subcutaneous ligature of the pedicle resulted in sloughing of the entire mass, followed by healing and cure.

Following this in 1892, F. J. Groner, in the *Medical Record* (12), describes the case of a child seven months old, with a lumbar meningocele, where ligature of the base was followed by operative removal of the tumor. Primary union did not occur, but the child recovered.

A further modification of this method is that described by Dr. Henry Howitt, of Guelph, in 1895 (13). He makes an incision through the skin surrounding the tumor, isolates the pedicle, ligatures it without opening the sac, removes the part external to the ligature, and closes the skin incision. He reports

six cases, all of which recovered from the immediate effects of the operation; one died nine months afterwards, and a second developed hydrocephalus and also died.

One of Dr. Howitt's cases had a club-foot and vesical sphincter paralysis, the tumor containing nerve tissue. These conditions were neither improved nor rendered worse by the operation. In regard to this he makes the statement that "All portions of the cord which escape into the sac, and which are attached to and follow its inner wall, are permanently destroyed so far as their natural function is concerned: in other words, we have paralysis in the parts supplied by them, and they may be removed without adding one iota to the paresis."

That this is not a safe rule to follow is shown by the fact that Jas. H. Nicholls, of Glasgow (14), in a very interesting paper to be again referred to, tells of a case where he produced paralysis of one leg by damage done in dissecting nerve cords from the interior of the sac. Moreover, fairly numerous cases have been reported (*e.g.*, those of Pearson and Van Buren Knott) where paralysis has been relieved by dissecting free nerve tissue contained in the sac, and returning it to the spinal canal, thus showing that even if the function of extruded nerve tissue be in abeyance, it is more a matter of inhibition, possibly from the abnormal position, than of permanent destruction of function, as Dr. Howitt suggested. Consequently its operative removal would be a serious mistake, and this constitutes a very valid objection to any of these operations that do not open the sac and allow of its exploration.

In reference to the practice of ligaturing the neck of the sac, Nicholls reports two cases where relapse followed after this method had been employed. It would seem preferable to close the neck by at least two rows of catgut sutures, applied from inside the sac.

He also discusses at some length the methods of closure of the gap in the spinal column, and comes to the conclusion that the opening, when closed by fibrous tissue and muscle by layer sutures, becomes very solid. He has not found the necessity of bone transplantation.

In the same year Prof. C. Y. Pearson (15) reported a case of myelomeningocele on which he had successfully operated, where a certain amount of vesico-rectal paralysis, which had existed before the operation, had disappeared. He laid special stress on the avoidance of escape of cerebro-spinal fluid, and advises the packing of the spinal canal with gauze for this purpose. In direct contrast to this is the advice of Nicholls, who makes no attempt to prevent the escape of cerebro-spinal fluid, and who also, if hydrocephalus is present, purposely elevates the head of the child to permit of the escape of a certain amount

of the fluid before closing the neck of the sac, thinking that in some cases this may relieve or cure the condition.

The question as to what influence the operative treatment of spina bifida has in producing subsequent hydrocephalus is one worthy of some consideration. Nicholls, on the one hand, expressly states that he does not think that the operation has any effect in producing this condition, but, as we have seen, believes that it may have a certain curative influence. On the other hand, there are scattered cases in the literature where hydrocephalus developed soon after, and apparently depended for its production on the operation.

For instance, Charles G. Cumston (16) reports a case of spina bifida in the region of the fourth and fifth thoracic vertebra. The cord was in the sac but was easily reduced, and the pedicle closed by suture. The child died on the fifth day with symptoms of hydrocephalus. Again, Dr. De Forest Willard (17) describes the case of an infant on which he operated at five weeks—where on opening the sac the entire cauda equina was found adherent to the posterior wall. The filaments were dissected free and replaced in the spinal canal. Primary union was secured, but the child at the time of writing was apparently becoming hydrocephalic, the author remarks—"a not uncommon sequel."

Lithgow (18) reports a case of a child ten months old with a spina bifida in the lumbar region. The sac was excised, pedicle closed and skin flaps brought together and sutured, the child making a complete recovery, but died ten days after operation from convulsions. The most natural explanation of this fatality would seem to be that there was hyper-secretion of cerebro-spinal fluid, which, unable to produce hydrocephalus, owing to the age of the child, and consequent fairly firm union of the sutures, did produce increased intra-cranial pressure, with convulsions and death.

It is difficult to see just what influence the removal of the sac of a spina bifida could have in producing hydrocephalus. Assuming that this latter condition is dependent on a hypersecretion of cerebro-spinal fluid (which is by no means admitted by all authorities), or even going further and assuming that the spina bifida itself is dependent on the same cause, why should the removal of the sac set up renewed or increased secretion?

It is said (19) that the cerebro-spinal fluid is secreted by the choroid plexuses, that its secretion is constant but variable in quantity, and that means for its escape are supplied by the tubular prolongations of the subarachnoid space along the nerve roots, which prolongations are continuous with the lymphatic vessels of the nerves. If we could assume that the sac of a spina bifida acted as a resorbent of the cerebro-spinal fluid,

that the operation, by cutting off this means of escape, produced a tendency toward retention, which under certain circumstances might be sufficient to produce enough intra-cranial pressure to bring about a hydrocephalic condition, we would have a fairly complete chain of events.

I have seen practically the same series of conditions occur in the case of an occipital meningocele of about the size of the child's head. It was removed by operative measures, with perfect success, primary union being secured, but within three weeks a hydrocephalic condition was apparent, which rapidly increased and soon ended in death.

It is difficult to see how the mere escape of a certain quantity of cerebro-spinal fluid, as recommended by Nicholls, could prevent the occurrence of this complication, but on the other hand it is equally difficult to understand how the blame for the occurrence of hydrocephalus after an operation can be laid at the door of the operation itself; though "post hoc" it is not necessarily "propter hoc," especially since there is, so far as I am aware, no evidence that the sacs have any such resorbent action as I have suggested.

Another possible mode of action is that the sac, by rapidly increasing in size, affords room for the increased quantity of fluid; that when the sac is operatively removed this fluid must find room for itself elsewhere, and in so doing produces the hydrocephalic condition. If this were the case, then it would seem that those cases where there is rapid enlargement of the spinal sac would be the ones where hydrocephalus would be the most likely to develop after operation. Whether this is the case or not could only be determined by observation of a large series of such cases, and I know of no such observations.

As already noted, Nicholls feels that the practice of dissecting nerve cords from the interior of the sac is not without risk. He accordingly advises that where nerve tissue is present on the sac wall, the latter should be cut into ribbons parallel with the nerve cords, the portions free from such excised, and the internal surface of the remaining nerve cords roughened with the point of a knife and replaced in the spinal canal. If excision of even small portions of the sac is impossible, the interior is roughened as before, and the opening closed, reduction in the bulk of the tumor being obtained by fibrous contraction.

The following cases may be described as illustrative of the results to be attained by operative treatment:

P. H., aged eight years. Complaints—large discharging mass in the lumbo-sacral region. Personal history: At birth a somewhat pedunculated mass, about the size of a large hen's egg was present low down in the middle line of the back. There was no paralysis, no club-foot, nor other evidence of nerve involve-

ment. The physician in attendance advised aspiration, followed by injection, and this method of treatment (presumably the injected fluid was Morton's mixture or some modification thereof) was carried out shortly after birth. Considerable inflammatory reaction followed the injection, which apparently went on to suppuration. At any rate, a purulent discharge soon appeared, which continued, in varying quantities, up till the present. At times there was mal-odor, at times there was none. The general tendency of the mass was to enlarge and become harder, and the general health of the child remained fairly good.

Present Condition—A well-nourished little girl, about eight years of age. At the lumbo-sacral junction in the middle line is a mass about the size of an orange, slightly flattened antero-posteriorly, and attached above to the body by a short pedicle about two inches in diameter. The surface of the tumor opposed to the skin of the back is formed of healthy skin, whereas the posterior surface of the mass is extensively ulcerated, and discharges pus freely, which latter, however, chiefly comes from a sinus, the opening of which is situated at about the centre of the posterior surface. By probing, this sinus is found to pass directly inwards for about $2\frac{1}{2}$ inches, and apparently to end blindly. The mass is not tender. On palpation of the pedicle the spinous process of the last lumbar vertebra appears to be defective.

Operative removal was advised and carried out in the following manner: Elliptical incisions were made around the pedicle of the mass, through the skin, which latter was retracted. The pedicle was then cut across. It had been my intention to do this slowly, keeping up a sharp lookout for any evidence of meningeal protrusion. From the moment of the first incision into the tissues of the pedicle the hemorrhage was so very free that this object was lost sight of in the presence of the more immediate necessity of removing the mass and controlling the bleeding. Owing to the hardness and brittleness of the tissues, the control of hemorrhage was extremely difficult, artery forceps simply crushing the tissue, and causing more bleeding than ever. The actual cautery assisted somewhat, some half dozen or more artery forceps were left *in situ*, and pressure applied by means of dressings firmly bandaged in place. The patient was practically moribund, and was removed from the table with the full expectation of early death. The pressure, however, controlled the hemorrhage, and she rallied immediately, the forceps were removed at the first dressing, and the wound healed by granulation without any bad symptoms. Needless to say there was no patent meningeal protrusion.

CASE 2.—Babe D., aged two days. This patient had a typical

meningocele in the lumbar region. The skin overlying the tumor was extremely thin, and rupture seemed imminent. There was no evidence of any nerve tissue being contained in the sac. Elliptical incisions were made through healthy skin, and the skin separated laterally from the pedicle of the tumor. The sac was then opened, absence of nerve tissue established, the neck of the sac sutured from inside with fine catgut in two rows, redundant tissue removed, and the skin incisions brought together and sutured with silkworm gut. Primary union was obtained, and the stitches were removed on the tenth day.

The foregoing may perhaps be said to warrant the following conclusions:

1. There are no absolute contra-indications to the operative treatment of spina bifida. The worse the case the more marked becomes the futility of other than operative measures, and the greater the probability that the child will die if left alone. Paralysis, hydrocephalus and marasmus, often spoken of as contra-indications, should not be so considered. Each has been, and may be improved.

2. *As to Method.*—In meningocele, opening of the sac, after dissecting up the skin by a pair of lateral incisions, suture of the neck, and removal of redundant tissue. In myelomeningocele and syringomyelocele, the same method combined with loosening of the nerve cords, and return of the same to the canal.

3. *As to Prognosis.*—Meningoceles, with more extended experience, should yield practically uniformly favorable results. In cases of syringomyelocele and myelomeningocele, owing to oft-present nerve involvement, the results will not be so encouraging. Paralysis may be relieved.

4. *As to Technique.*—(a) Absolute asepsis, combined with as little handling of nerve tissue as is essential, will give the best results. (b) Loss of cerebro-spinal fluid in moderate amounts is not of importance. (c) Operating on an inclined plane is not necessary. (d) The use of bony flaps is rarely, if ever, essential.

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Progress of Medical Science.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D.C.M.

The Use and Abuse of the Lachrymal Probe.

G. F. Suker (*American Journal of Ophthalmology*) strongly opposes the use of large probes. After discussing the matter from various standpoints he summarizes his objections as follows: (1) Very large probes cause undue pain; (2) are liable to produce destruction of the membranous lining of the nasal canal; (3) are very prone to produce strictures, or at least to cause undue damage to the small opening into the sac and into the nasal canal; (4) are apt to produce an unduly large lachrymo nasal canal, and thus invite infection from the nose or cause annoying influx of air into the canal upon blowing the nose; (5) necessitate undue slitting of the canaliculus, a procedure to be zealously avoided; (6) the possible obliteration of either the canalicular or nasal opening of the sac; (7) the ease with which hemorrhages are caused in the nasal canal and the attending liability of the clot becoming organized and forming new strictures; (8) the resulting large lumen of the canal is of no actual benefit in conducting tears to the nose.

Suker also advises to use small or medium sized probes as infrequently as possible, quoting the old saying, "If you once pass a lachrymal probe that patient is liable to become a probe victim forever and a day." Suker says, "As a matter of fact, all probes are an evil," although he does not oppose, in properly selected cases, the use of small or medium sized probes.

In this connection a paper by S. D. Ridley may be referred to (Section of Ophthalmology, American Medical Association). The paper consisted of a study of the anatomy of the lachrymal drainage apparatus, which, the author said, suggested much caution in the surgical procedures adopted to relieve the retention of tears caused by obstruction of some portion of the system. All surgical interference that impairs the physiologic function of this drainage system should, as far as possible, be avoided. The nasal duct, the writer insists, is not an open drain pipe. In the experience of the author, forcible dilatation, cutting operations involving the lining tissues of the bony nasal duct, or extirpation of the lachrymal sac had rarely proved necessary when the cases had been seen at first hand. He thought that, when it is considered that the mucous

membrane forming the nasal duct lies in a bony canal subject to great anatomic variations, it was obvious that we should at least hesitate before plunging forcibly through this duct instruments that could only hopelessly injure this admirably contrived apparatus; that such means should be adopted only when other means failed.

Ocular Hemorrhages in the Newborn—The Eyes and the General Health—Errors of Refraction.

Walter L. Pyle (*American Medicine*) thus comments on these subjects: Retinal hemorrhages in newborn children occur much more frequently than is supposed. Several continental observers have found them in over a fourth of the cases examined. Bjerrum, Königstein, Schleich, Montalcini, Naunhoff, Hippel, and others have contributed statistical papers on this subject. Strange to say, choroidal hemorrhages are seldom found, and it is rare to find hemorrhages in the ciliary region, iris or anterior chamber. Usually the hemorrhages occur in the nerve-fibre layer of the retina, but there may be extravasations in the neighboring spaces of this structure and the optic nerve. They vary in shape and size, according to their anatomic location. Occasionally microscopic examination has shown no evidence of actual rupture of a retinal vessel, and by some observers it has been concluded that these hemorrhages may sometimes occur by diapedesis. If such is the case, it is likely that there would be a more rapid disappearance than when actual rupture occurs. Coburn has investigated this subject thoroughly, with a particular endeavor to ascertain whether these natal hemorrhages may not account for certain cases of amblyopia without ophthalmoscopic changes. While not bringing any strong confirmative evidence to support this thesis, he has elicited many interesting points in this connection. Notwithstanding the natural supposition that for many reasons the children of primiparas are most likely to suffer from intraocular hemorrhages, no proof of this is shown in the collective investigation. In a majority of Coburn's cases the hemorrhages were near the equatorial region, while former observers found them most often at the posterior pole. Long and complicated labors naturally predispose to the occurrence of intraocular hemorrhage, but Coburn does not unduly blame the use of forceps in such cases. Extravasations are most likely in congenitally weak children, and those with a family history of hemophilia. It is stated that the condition is most likely to be seen in negro children. Coburn believes that dilatation of the nerve sheath with cerebrospinal fluid and consequent compression of the optic nerve and central vessels, is not unlikely an important element in etiology. In some of the patients examined, even when there was no

hemorrhage, he was struck by the marked congestion of the ocular fundus.

The relation of the eyes to the general health should have wider expression. It is common to consider the visual apparatus as a separate organization, overlooking its important connection with the whole human economy. If there is a deficient blood state or nervous debility or perversion, if the secretions are abnormal: in fact, if there are any serious functional or organic changes in the body, the eyes may participate in the evil consequences. Again, ocular labor at close range is not a passive act: it requires continuous and vigorous muscular and nervous effort, and only those in normal health are able to perform continuous ocular work without more or less discomfort. Those measures and modes of life which are conducive to general health and vigor will be beneficial in maintaining ocular health and vitality. Not only must the laws of ocular hygiene be carried out, but there must also be proper observance of the general care of the body and mind.

The proper diagnosis and correction of errors of refraction require not only thorough technical education and skill and comprehensive knowledge of general medical science, but also a strong personality and a living faith in the great importance of ametropia—particularly of astigmatism, even in small amounts—in the causation of chronic ill-health. Without such faith no man, no matter how great his auxiliary attainments, is competent to diagnose or direct treatment in this class of cases. Unfortunately the European physicians, who have until recently dominated medical thought, have not as yet fully awakened to the importance of careful refraction—an art that owes so much to the patient scientific revelations of their predecessors. Lack of faith and distrust breeds carelessness and indifference. Small amounts of astigmatism are ignored, and slight deviations from the ordinary axes are overlooked. Careful subjective methods are discarded for crude and rapid objective tests. The ophthalmometer is made a fetish, mydriatics are dispensed with, and frequent re-examinations to detect changes in the refraction of the eye are deemed unnecessary. The natural sequence is the prescription of improper lenses and failure to relieve the asthenopia. Then follows the cry that too much is made of eyestrain, and that the advocates of careful refraction are “hobbyriders.” Again, no little discredit has been thrown upon the correction of eyestrain in the treatment of disease by the senseless and fanatic advocacy of tenotomy or advancement in cases of properly diagnosticated asthenopic reflexes. There is little doubt that derangements in the balance of the extraocular muscles are almost always the result of ciliary strain, and in such cases it is careful refraction rather than ridiculously refined surgery that is indicated.

Editorial.

STREET CARS.

It would be a valuable department of health statistics that should tell us, if such a thing were possible, the part that street cars play in the spread of infection and the causation of disease. In all the street car cities of Ontario the ventilation of street cars is defective, and the larger the city the worse the street car air is, as a rule.

The Chief of the Brooklyn Health Department has apparently found a simple and effectual way of ventilating cars. The plan is as follows :

Two openings about ten inches apart are made in the deck-sash of the car. Slats are fitted into these openings so as to deflect the intake of air to the roof of the car; and between these openings, on the outside of the car, a shingle is extended, against which the air strikes when the car is in motion.

As the car moves at the rate of, say, fifteen miles an hour, the air strikes the shingle and is deflected into the car, and at the same time a vacuum is created in the car, so that the impure air rushes out through the rear slats. Tests showed that 300 cubic feet of air entered the car every minute. On one test the atmosphere of a car was purposely rendered very impure; then the car was set in motion, and in two and one-half minutes the air was good, but no draught was experienced. Ventilate the street cars. Many people spend hours in them every day.

THE GRANT MEMORIAL.

The Grant Memorial, highly situated on the grounds of Queen's University at Kingston, was formally opened and dedicated, November 9th. The edifice was built chiefly from the contributions of those whose training this distinguished scholar had conducted or supervised.

The *Toronto Globe* in an editorial speaks as follows: "The building will be a most useful addition to the accommodation afforded by the University, but it will also serve as a constant

reminder of two things that have been of unspeakable advantage to Queen's—the personality and administrative work of Principal Grant, and the enthusiastic and self-sacrificing devotion of the Alumni to the interests of their Alma Mater. No more fitting monument could have been erected to a man for whom mere prestige had immeasurably less attraction than the opportunity of rendering others a service.”

THE TREATMENT OF INCIPIENT INSANITY.

Professor Algernon Temple in his opening lecture, in speaking of the advances in medicine during the last fifty years, referred especially to the treatment of the insane. He told us that half a century ago those suffering from the loss of reason were separated from their fellows and subjected to restraint, confinement, torture, chains and fetters, while to-day they are treated in a more rational and kindly manner.

Dr. James Russell, of the Hamilton Asylum, has recently prepared an able and interesting paper, entitled “A Plea for the Voluntary Admission of Certain Types of Insanity to Institutions for the Insane,” which we are kindly allowed to publish in this issue. The author had recently a pleasing experience with a gentleman who voluntarily entered his asylum and was thus saved the humiliation of undergoing examination and being certified as a lunatic before admission. The patient was also treated in an isolated building instead of being compelled to mingle with the ordinary inmates. We can conceive of nothing more satisfactory than such a line of treatment for any broken-down neurasthenic who is threatened with lunacy.

Dr. Russell gives emphasis to the fact that many mental disorders are functional rather than organic; but with delay in treatment there is always danger of the formation of a morbid brain habit which tends to chronicity. Early treatment under the discipline of institutional life is absolutely necessary for many patients thus afflicted. The various “rest cures,” with a few exceptions, have not proved satisfactory. Dr. Russell considers that provision should be made for all classes of patients suffering from threatened, incipient and acute insanity

with sufficient isolation and other comforts to meet the social requirements of each. The pathway to the institution should be made inviting, and all useless red-tape formalities should be abolished.

To no class of cases would such recommendations better apply than to those threatened with or suffering from puerperal insanity; and yet many of us in the past have been inclined to temporize too long because of the *moral effect* of the words "lunatic asylum." We feel, however, that we cannot in a short editorial do justice to such an admirable paper, which we cordially endorse in all respects. We hope that the general physician will work in unison with the expert alienist on the lines indicated by Dr. Russell.

TUBERCULOSIS OF THE PLACENTA.

Schmorl & Giepel (*Münchener med. Woch.*) have restudied this question, and conclude that transmission of the tubercle bacillus from mother to child is much more common than is generally supposed. They have had an opportunity of studying placentaë from twenty women in various stages of tuberculosis—eleven of the advanced type, four of moderately advanced, and three of the early stages. There was one case of tuberculous meningitis and one of acute miliary tuberculosis. Of the eighteen cases which were delivered at full term, there were eight placentaë containing evidence of tuberculosis. A tuberculous placenta was also obtained from a seventh-month delivery. In only three of the nine specimens could the diagnosis be made with the naked eye. In the others the microscope had to be used. Once two thousand sections had to be made before the characteristic lesion was found. The tubercles develop most often on the surface of the villi or in the intervillous spaces, but any portion of the placenta may be attacked.

Their conclusions are that it is unlikely that the child develops the disease in every case of infected placenta, but that when it *does* become tuberculous at or soon after birth, the bacilli are transmitted directly from the mother. F. A. C.

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

We published in our last issue the particulars of an action for damages against Drs. W. F. Bryans and G. B. Smith, of Toronto. The plaintiff accused the defendants of assault because they had forcibly given her a hypodermic injection of morphine; of trespass because they had gone into her house without being asked by her; of conspiracy because they had conspired with her husband to deprive her of her liberty.

Dr. Bryans concluded his plain statement as to the facts as follows: "We feel the action was entirely unjust. The judge and jury took the same view. It cost us three hundred dollars each, besides time and worry. Moral—*Join the Canadian Medical Protective Association.*

It seems extraordinary that two such careful, honest and conscientious physicians should have been subjected to such a vexatious prosecution on the flimsy pretexts advanced by the plaintiff's counsel.

We publish in this issue the particulars of an action against Dr. Herbert A. Bruce, of Toronto. The patient had obstruction of the bowels with, as it turned out, some gangrene of the gut. The doctor, by the performance of a very skilful operation, had the good or ill fortune to save a life. The man did not consider that the saving of his life was worth \$100, but he thought that certain superficial burns caused by an unfortunate mistake of the trained nurse were worth \$5,000, and accordingly sued the doctor for that amount. The learned judge, after hearing the evidence, declined to agree with the grateful patient, and gave a verdict for the defendant.

A plain statement of the facts in each case makes comment quite needless, but we desire to remind the profession that the Medical Protective Association is an exceedingly important organization, and richly deserves the support of the profession at large. We regret exceedingly that Drs. Bryans and Smith were not members of this Association. Dr. Bruce is a member, and received a certain amount of assistance from the Executive. We understand that the President, Dr. Powell, of Ottawa, desires a larger membership and more active co-operation on the part

of various cities in all the provinces. It is suggested that a number of local secretaries be appointed, who shall assist the Executive officers in Ottawa. We are informed that much more money is urgently needed. This may be easily understood from the fact that one case last year cost the Association over \$300, although winning the suit. We are requested by Dr. Bruce to say that, although he found it somewhat inconvenient to have no agent of the Association nearer than Ottawa, he at the same time highly appreciates the kindness and courtesy which he received from the officers and especially from the President, Dr. Powell.

THE TORONTO GENERAL HOSPITAL AND TORONTO DISPENSARY.

We are told that the first sod was turned, preparatory to laying the foundation stone of the present Toronto General Hospital, near the banks of the classic Don, just fifty years ago. When it was first proposed to erect a hospital on the present site many of the citizens were opposed to the location thinking that it was too far east from the centre of the city, and as a compromise a Free Dispensary was established on Adelaide Street West in 1854, which is still in existence at 133 Simcoe Street.

The first Board of Trustees appointed in 1856 were John Doel, J. G. Bowes and Dr. C. Widmer. The first Board of Physicians were Drs. Jas. H. Richardson, W. M. Hodder, J. Bovell, J. Herrick, J. Telfer and C. Widmer. Dr. Richardson alone survives.

The hospital for many years had a precarious existence, through shortage of funds. In 1862 the trustees borrowed \$50,000 to pay off the debts. After a hopeless struggle the hospital was closed in 1868. It remained closed for one year and was then reopened after the local legislature had carefully considered its affairs, and thoroughly reorganized its directorate.

In 1875, through the generosity of the late Mr. Erlandson, of Port Hope, and Mr. Gentle, of Montreal, the sum of \$16,000 was spent on the building. In 1877, through the generosity of Messrs. Cawthra, Gooderham and Worts, who donated a large

sum of money, the western division of the main building was erected. In 1885 a large addition was made to the left wing. In 1882 the pavilion was erected from funds donated by the late Senator Macdonald and the late Wm. Gooderham. In 1898 the down-town branch, known as the Emergency Hospital, was established on Bay Street. Miss U. McKellar has been in charge of the Burnside Lying-in Hospital for fifteen years. Miss Sadie Gladstone has been in charge of the pavilion for five years. Miss Mary Snively has had charge of the Nurses and the Training School for Nurses for twenty years.

During the fifty years the General Hospital has had only two secretaries, J. W. Brent and A. F. Miller. Mr. Miller looks after the finances of the institution. Dr. C. O'Reilly, the Medical Superintendent, has held that office from 1876 to the present. The growth of the institution under his able *regime* may be fairly appreciated by the following figures: In 1876 there were 972 patients in the hospital, and in 1903, 3,718. In 1904 it is expected that the number will be at least 4,000. The Board of Trustees at present are: J. W. Flavelle, Geo. Gooderham, M. J. Haney, P. C. Larkin and Mayor Urquhart.

* * * * *

There has been but little change in the management of the Toronto Dispensary since its inception, and it has continued to do, in a very quiet and unostentatious way, great good. Among the medical men whose services have always been rendered gratuitously are the names of many well-known practitioners, such as the late Doctors Small, C. B. Hall, Hodder, Widmer, Geo. Wright, R. Zimmerman, B. Spencer, F. Greenlees, L. McFarlane, and F. H. Wright. Among those who have retired from the staff are Doctors W. W. Ogden, I. H. Cameron, F. LeM. Grasett, E. St. George Baldwin, A. E. Senkler, H. T. Machell, R. B. Nevitt, Adam Wright, A. McPhedran, Allen Baines, G. H. Burnham, W. Nattress, B. R. Riordan, J. F. W. Ross, D. C. Meyers, and others.

In looking over the Annual Report for the year 1877, we find that there were during that year 4,000 new patients, and over 6,000 old patients, making a total of 10,000 applications for relief.

In 1903 there were between 16,000 and 17,000 applications for relief.

When patients come who are too ill to be successfully treated at the Dispensary, they are sent to the Hospital; and thus the charity instead of interfering with the work of the Hospital ably supplements it.

As stated, the work is continued along the same lines and in the same section of the city as in 1854 at the organization. There are absolutely no facilities for proper work in the house occupied, which is a two-story house in a row. The hall is the waiting-room. A proper building suitably equipped is sadly needed to enable poor patients to obtain the advantages of modern advances in medical and surgical work.

It is estimated that \$10,000 would furnish such a building.

The names of the physicians now acting are Doctors A. Davidson, J. W. Lesslie, G. B. Smith, W. H. B. Aikins, W. J. Greig, A. H. Garratt, J. F. Dawson, W. H. Pepler, Harley Smith, J. MacCallum, D. J. G. Wishart, and Goldwin Howland.

NEW PHYSICS BUILDING FOR THE UNIVERSITY OF TORONTO.

The authorities of the University of Toronto were both pleased and surprised when they learned, November 29th, that the Government had decided to give \$180,000 for the building of a new Physics building. The Government is receiving this amount from the Grand Trunk Railway for the old Parliament buildings on Front Street, and has decided that it shall be placed to a special account for the benefit of the University instead of going into the general revenue.

Plans for the new building were prepared some time ago in connection with the general plans for the additions to the University which have been going on for some time. In accordance with these plans, which have been prepared by Messrs. Darling & Pearson, the new building will be erected without encroaching on the recreation or park grounds.

Mr. W. T. White, one of the recently elected members on the Senate, while approving of the new grant thinks it will not be sufficient, and proposes that the Province of Ontario should

adopt the plan carried out in certain of the States of the American Union; *i.e.*, to levy a direct tax of one-tenth of one mill on the dollar on the assessed value of property in the Province. The revenue thus produced would be about \$90,000 a year. He thinks that otherwise the University will always be asking for money; or, when it ceases to do so it will be dead.

Toronto Medical Society.

On the first Thursday of each month the Executive of the Toronto Medical Society has arranged for a meeting of its members at one of the Hospitals as follows: Jan. 5th, 8.30 p.m. sharp, Western Hospital; Feb. 2nd, 8.30 p.m. sharp, Grace Hospital; March 2nd, 8.30 p.m. sharp, St. Michael's Hospital; April 6th, 8.30 p.m. sharp, Toronto General Hospital.

At each of these meetings the Hospital Staff will present a full complement of interesting clinical cases, and the Hospital Board furnish refreshments for a pleasant social gathering at the close.

Hospital for Consumptives.

At a meeting of the Trustees of the Toronto Free Hospital for Consumptives, held November 9th, at the National Club, Toronto, with Mr. W. J. Gage in the chair, the Secretary reported that forty patients had already been received into the new institution near Weston, and that building operations are still in progress adding to the accommodation. Dr. Allan H. Adams is the Physician-in-charge.

The Negri Bodies.

Dr. Negri, of the University of Pavia, described about a year ago peculiar bodies found in the nerve cells of animals that had died of hydrophobia. These bodies are almost constantly present in the protoplasm but seldom in the nucleus. Found in greatest abundance in the hippocampus major, they also appear in the cerebrum, pons, cord, and in the Purkinje cells of the cerebellum. The bodies Dr. Negri describes are usually round or oval, and vary much in size from those just visible to the microscope to forms measuring twenty-five microns in length. They take the ordinary stains and resist putrefaction for several days. The presence or absence of these bodies is an important aid to the diagnosis of hydrophobia, and their discovery marks progress in our knowledge of this peculiar and little-understood disease.

ARMSTRONG VS. BRUCE.

This was an action brought by Charles Armstrong, of Brampton, against Dr. H. A. Bruce, for burns received from a hot water bag while the latter was performing an operation upon him. The facts of the case are briefly as follows:

Dr. Bruce was called to Brampton by Dr. Lawson, on Nov. 23rd, 1903, to see Mr. Armstrong, who was suffering from acute intestinal obstruction.

Armstrong had been sick with the usual symptoms of obstruction for two days, and Dr. Lawson had given purgatives and enemata without result. When Dr. Bruce saw him he had severe abdominal pain, distention, rigidity of the muscles, vomiting, a very weak pulse and a subnormal temperature with hippocratic facies.

A room in Armstrong's house had been prepared that morning for the operation by Miss Fawcett, a trained nurse, a graduate from Galt hospital, engaged by Dr. Lawson, acting for Armstrong. Dr. Bruce took with him a Kelly pad, which can be filled with hot water or air, and said to the nurse, "This is an improvement on the old Kelly pad, as it can be filled with hot water, and serves to keep the patient warm during the operation, obviating the necessity for hot water bottles. Fill it just as you would an ordinary hot water bottle." The nurse took it and had it filled with *boiling water* and placed it under the patient. While this was going on Dr. Bruce was washing and disinfecting his hands and placing his instruments, sutures, etc. The operation was proceeded with and the obstruction found to be due to a knuckle of bowel strangulated in the internal abdominal ring and adherent there. This was separated with some difficulty and withdrawn, when a small portion of bowel—about the size of a five-cent piece, was found to be gangrenous. This was turned in and sewn over with Lembert sutures, so that it might be thrown off into the gut.

The patient made a good recovery from the operation, but the next day he was found to have received superficial burns across the back and thighs. These were painful but not severe, and were healed at the end of seven weeks when he was able to be up and about the house. Altogether he was confined to the house about ten weeks.

When Dr. Bruce's account was sent later, Armstrong declined to pay it, stating that he had been burned. As no payment was made at the end of six months, after several requests, Dr. Bruce sued him for \$100, amount of his account, and a week later Mr. Armstrong issued a writ against Dr. Bruce for \$5,000. He claimed that the operation was unnecessary and that he had been burned through negligence. According to the evi-

dence of Drs. Bruce, Hall and Lawson, the plaintiff would not have survived forty-eight hours but for the operation.

The trial was held at Brampton on October 25th, before the Hon. Mr. Justice Meredith. Mr. Riddell and Mr. Mulock appeared for Dr. Bruce.

Expert evidence was given by Mr. I. H. Cameron, Drs. J. F. W. Ross, Geo. A. Bingham, John Caven, Wm. Hall, and J. A. Lawson. The following nurses were present to give evidence on behalf of Dr. Bruce, but His Lordship after hearing the medical evidence intimated that it was unnecessary to call them: Miss Eastwood, Superintendent of Victorian Order of Nurses; Miss Patton, Superintendent of Grace Hospital; Miss Graves, head nurse at St. Michael's Hospital; Miss Gray, Superintendent of Home for Incurables, and Miss Falkiner, graduate of Toronto General Hospital.

The evidence for the defendant went to show that the preparation of the patient, placing him upon the operating table and the filling of hot water bottles, etc., was the familiar knowledge of the nurse and her duty, and that the surgeon had nothing whatever to do with these details. It was clearly proven, even by the evidence of Miss Fawcett that nurses receive during their training, instruction in the filling of hot water bags and that they know the proper temperature of water for this purpose. The medical evidence showed that a surgeon is justified in trusting a nurse with filling these bags and is not required to examine them to assure himself that they are not too hot.

It was shown that after a surgeon is disinfected and prepared for the operation, it would be grossly wrong and a source of danger to the patient for him to feel hot water bags, which are unsterilized. That a surgeon *must* trust the nurse with the preparation of solutions, sponges, hot water bottles, etc., and that it is impossible for him to attend to these details. Any mistakes made in these preparations would be a danger to the patient and might result fatally. Operations are performed nowadays with safety which were not possible a few years ago. This is owing to the development of antiseptic surgery and the efficient training of nurses, and their help at an operation is absolutely necessary to the successful carrying out of the antiseptic details. The surgeon could not be expected to attend to these details and must necessarily trust his nurses.

His Lordship's judgment was as follows:

The plaintiff sustained a very painful injury, and one which has caused him some loss. These facts do not necessarily entitle him to relief from the defendant. In order to have damages in this action he must satisfy the court that the defendant has been guilty of some actionable negligence. The defendant is a skilled

gentleman, a gentleman of the medical profession, and what would in an ordinary individual be but mere negligence would in his case, no doubt, be gross negligence. Had he done that which the nurse testifies he did, it would in my judgment have been gross negligence. Whether I would be obliged to say that the injury which the plaintiff sustained was the natural effect of that negligence is another question and one which I need not determine. What I have now to find is whether the plaintiff has affirmatively shown that there was negligence on the part of the defendant in occasioning the injury of which he complains.

I am unable to find upon the evidence that the nurse's statement is accurate. She is, I think, quite mistaken as to the direction proceeding from the defendant in regard to the filling of the pad. I am satisfied that she has confused that which he said in regard to sterilizing his instruments, with that which he said in regard to filling the pad. I have no manner of doubt that if the doctor had said to any experienced nurse that she was to fill that pad with *boiling water* it would at once have struck her as an extraordinary thing, and one calling for some explanation. Nothing of that sort took place. It was a thing that could not have been done by Dr. Bruce, unless through a slip of the tongue. He never meant that she should do that which she did. So that the probabilities are altogether against the story of the nurse. And the direct testimony very greatly preponderates in favor of the defendant. We have Dr. Bruce's own statement, which is worthy of at least as much credence as that of the nurse. No doubt everyone is naturally prejudiced in his own favor in a case of this kind, and Dr. Bruce's action in saving himself against a charge of negligence is to some extent affected by his interest. On the other hand, the nurse is saving herself from a charge of negligence, and probably an action for the recovery of damages. They stand upon an equal footing as far as that is concerned. Then there is the testimony of the other two medical gentlemen, who say that the nurse is mistaken. Upon the whole I find that the direction to fill the pad with *boiling water* was *not* given, but the direction was given to fill it as if it were a hot water bottle, and if that be so, the plaintiff's case seems to me to fall to the ground. I cannot find any negligence in Dr. Bruce having under the circumstances assumed that the nurse would perform her duties properly. I cannot think that upon this branch of the case anything like a case is made out for the plaintiff. It is not contended that liability arose by reason of any relationship of master and servant having existed between the defendant and the nurse. The facts would not support any such contention. There was no such relationship.

The only question which causes me any trouble is as to the disposition of the costs. Under all the circumstances of the case, I think I am fairly exercising my discretion in making no order as to costs of the action.

The action will be dismissed without costs if the case go no further. If it go further, dismissed with costs, and there will be judgment for the defendant on the counter-claim with costs on the Division Court scale, without any set-off.

The plaintiff has not appealed from this judgment, and the time within which he could do so has expired.

Personals.

Dr. A. H. Anderson (Trin. '02) is a surgeon in the Japanese army.

Dr. A. A. Macdonald, of Toronto, has removed to 341 Bloor Street west.

Dr. Allen Baines, of Toronto, has removed to 226 Bloor Street west.

Dr. L. F. Miller, of Toronto, will spend the winter in southern California.

Dr. Kenneth McKinnon (Tor. '01) was married October 12th to Miss Tytler.

Dr. Allan Shore, of Toronto, has removed to 425 Bloor Street West.

Dr. W. J. Clarke has removed from Orangeville to 475 Dovercourt Road, Toronto.

Dr. John M. Amyot has removed from 30 St. Joseph Street, Toronto, to Thornhill.

Dr. D. McGillivray has been appointed Tutor in Medicine in the University of Toronto.

Dr. Uzziel Ogden has removed from Carlton Street to 21 Maple Avenue, Rosedale.

Dr. W. C. Barber has been appointed Assistant Superintendent of the Kingston Asylum.

Dr. Major H. Laings (Tor. '03), of Hamilton, was married October 19th to Miss Rothwell.

Dr. Morley Currie, M.P.P., of Picton, was married November 2nd to Miss Clarke, of Toronto.

Dr. J. F. McConnell has removed from Las Cruces, New Mexico, to Colorado Springs, Col.

Dr. Murray MacFarlane has removed to 18 Carlton Street, the former residence of Dr. Ogden.

Dr. J. A. Roberts, of Toronto, after a visit to Baltimore, started for Winnipeg, November 24th.

Dr. Geo. M. Briggs has been appointed Assistant to the Superintendent at the Mimico Asylum.

Dr. McNaughton, of London, has been transferred to Kingston, to take the place of Dr. Herriman.

Dr. W. T. Wilson has been transferred from Hamilton to the London Asylum, to succeed Dr. McNaughton.

Dr. W. H. B. Aikins returned to Toronto, November 23rd, after having spent a week in New York City.

Dr. L. G. Stewart, of Toronto, sailed October 19th for Glasgow, and will do post-graduate work in Glasgow, Edinburgh and London.

Dr. Robert Turnbull (Trin. '01), of Torah, Minn., was married October 19th to Miss Lundy, of Newmarket.

Dr. W. C. Herriman has been removed from Kingston to London, to take the place of Dr. Bell in the Asylum.

Dr. W. P. St. Charles, of the Mimico Asylum, has been appointed Relieving Officer to the Public Institutions of Ontario.

Dr. Brefney O'Reilly returned to Canada, landing at Vancouver, November 28th, after a trip to Japan on the steamship *Tartar*.

We hear from time to time that Dr. H. C. Wrinch (Trin. '99) is doing good work in British Columbia. Through his efforts a hospital has been completed at Hazelton, B.C.

Dr. R. W. Bell, Second Assistant Physician at the London Asylum for Insane, has been transferred to the position of Medical Inspector of the Provincial Board of Health.

A statue has been erected to the memory of Dr. E. B. Davis, late of Birmingham, Alabama. It has been placed in Capitol Park, in the city of Birmingham, and will be unveiled, December 16th, during the meeting of the Southern Surgical and Gynecological Associations, in that city.

The following appointments have also been made in the Medical Faculty of the University of Toronto: Dr. B. E. Henderson, who spent last year in study at Prague Marburg, Administrator in Dermatology and Pharmacology; Dr. W. J. O. Malloch and Dr. A. O. Hendrick, Administrators in Physiology.

Obituary.

WILLIAM MCGILLIVRAY, M.B.

Dr. William McGillivray died at his home in Pipestone, Minnesota, November 28th, aged 39. The cause of death was septicemia. He was born in Whitby, Ontario, and graduated from the University of Toronto in 1890. After practising in Ontario for some years he went to Minnesota in 1896, where he practised for eight years. Dr. McGillivray was well known in this part of Canada, and was much loved by his numerous friends. He leaves a wife, three children, two brothers, physicians—Drs. C. F. McGillivray, of Whitby, and Donald McGillivray, of Toronto—one brother-in-law, a physician, Dr. Fotheringham, and numerous other relatives. William McGillivray was one of Canada's best products—an excellent physician, a manly man, a good and useful citizen in all respects. His untimely death has caused the deepest regret both in his former home in Ontario and in his later home in Minnesota.

Book Reviews.

Visiting and Pocket Reference Book for 1905.

The following is a comprehensive contents: Table of Signs, and How to Keep Visiting Accounts; Obstetrical Memoranda; Clinical Emergencies; Poisons and Antidotes; Dose Table; blank leaves for Weekly Visiting List; Memorandum; Nurses' Addresses; Clinical, Obstetrical, Birth, Death and Vaccination Records; Bills Rendered; Cash Received; Articles Loaned; Money Loaned; Miscellaneous; Calendar, 1905, 126 pages; lapel binding, red edges. This very complete Call Book will be furnished by the Dios Chemical Co., of St. Louis, Mo., on receipt of ten cents for postage.

Light Energy; Its Physics, Physiological Action and Therapeutic Applications.

By MARGARET A. CLEAVES, M.D., Fellow of the New York Academy of Medicine; Fellow of the American Electro-Therapeutic Association; Member of the New York County Medical Society; Fellow of the Société Française d'Electrothérapie; Fellow of the American Electro-Chemical Society; Member of the Society of American Authors; Member of the New York Electrical Society; Professor of Light Energy in the New York School of Physical Therapeutics; Late Instructor in Electro-Therapeutics in the New York Post-Graduate Medical School. With numerous illustrations in the text and a frontispiece in colors. New York: Rebman Company, 10 West 23rd Street, cor. 5th Ave. London agents: Rebman Limited, 129 Shaftesbury Avenue, W.C. Sole Representative in Canada: C. E. Wingate, 186 Adelaide W., Toronto.

Health and Disease in Relation to Marriage and the Married State. A manual contributed to by many authors. Edited by Geh. Medizinalrat Prof. Dr. H. SENATOR and Dr. MED. S. KAMINER. The only authorized translation from the German into the English language, by J. DULBERG, M.D., of Manchester, England. In two handsome Royal 8vo volumes of about 500 pages each, bound in cloth, \$7.00 net; in half leather, \$8.50. New York: Rebman Company, 10 West 23rd Street. Sole Representative in Canada: Charles E. Wingate, 186 Adelaide St. W., Toronto.

The Physician's Pocket Account Book, by Dr. J. J. TAYLOR, is a neat, compact, easily kept and strictly legal book, carried in the pocket, always with you, showing each person's account at a glance. All entries are made but once, on the day when the services are rendered, in plain legal language, and require no posting or further attention. Published by the author, 4105 Walnut Street, Philadelphia.

By always being able to show all inquirers the exact state of their accounts wherever you may meet them, showing date and nature of each transaction, you will save more than enough in one year to buy account books for a hundred years. Being simple and complete, it will save you much valuable time in keeping your accounts and much needless worry as to their correctness.

Briefly the advantages of this book are: (1) Easily kept—requiring about one-fourth the time of other styles; (2) simple and easily understood by all; (3) always up-to-date without posting; (4) always with you to show any one his account when he wishes to pay; (5) strictly legal and entirely admissible as evidence; (6) no more expensive than other forms of books.

The book contains obstetric, vaccination, and death records and cash accounts. The book is 4 $\frac{1}{4}$ by 6 $\frac{3}{4}$ inches, containing over 224 pages. Prices: Bound in leather, \$1.00; also bound in manilla boards with separate leather case. Price of case and two manilla books, \$2.00. Subsequent manilla books to use in the case, 60 cents each, two for \$1.00, three for \$1.40; also large size for desk or office use, \$4.00. Address Dr. J. J. Taylor, author and publisher, 4105 Walnut Street, Philadelphia, Pa.

Essentials of Chemistry, Organic and Inorganic. Containing also questions on Medical Physics, Chemical Philosophy, Medical Processes, Toxicology, etc. By LAWRENCE WOLFF, M.D., formerly Demonstrator of Chemistry at the Jefferson Medical College, Philadelphia. Sixth edition, thoroughly revised. By A. FERKEE WITNER, Ph.G., formerly Assistant Demonstrator in Physiology at the University of Pennsylvania. 12mo volume of 225 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Cloth, \$1.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

We need but mention the fact that this little work has reached its sixth edition to prove beyond question its practical usefulness. The recent important discoveries in physics and inorganic chemistry have rendered it necessary, in Dr. Witner's revision, to make extensive additions almost to every part of the work. The subject of organic chemistry, especially organotherapy and the substituted ammonias, has also been carefully revised and much new matter added. We find the book unusually excellent.

Essentials of Nervous Diseases and Insanity: their Symptoms and Treatment. By JOHN C. SHAW, M.D., late Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. Fourth Edition, Thoroughly Revised. By SMITH ELY JELIFFE, Ph.G., M.D., Clinical Assistant, Columbia University, Department of Neurology; Visiting Neurologist, City Hospital, New York. 12mo volume of 196 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, \$1.00 net.

Of the progress made in every branch of medicine during the last few years, none has been more prominent than that considering diseases of the nervous system and of the mind. Dr. Smith Ely Jelliffe, therefore, in making the revision for this new fourth edition, has found it necessary to recast the work entirely, bringing the order of arrangement in accord with the

present knowledge of these important subjects. Quite a commendable change in arrangement is the grouping of subjects in such a way as to bring out the natural relations of affiliated nervous disorders. This will be found of great service to the student.

In the section on disorders of the mind, the general views of such leading psychologists as Ziehen, Weygandt, Kraepelin, Berkeley, and Peterson have been carefully weighed. This new fourth edition is well worthy our recommendation, and we give it most heartily.

Hand-Book of the Anatomy and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. ST. JOHN ROOSA, M.D., LL.D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School; formerly President of the New York Academy of Medicine, etc.; and A. EDWARD DAVIS, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School; Fellow of the New York Academy of Medicine. 300 pages, square, 12mo. Price, extra cloth, \$1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This is a small volume on a large subject, with all the faults and all the virtues of a manual. One praiseworthy feature, which distinguishes it from nearly all other text-books, is the introduction of the derivation of the technical terms—a most important thing to the student in these days when a classical education is becoming a story of the past. The descriptions are very clear, but there are no illustrations.

Physician's Visiting List (1905)—Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Sold by all booksellers and druggists.

This handy pocket visiting list has been published now for fifty-four years and has earned its reputation of being the best in the field. It leaves nothing to be desired by the busiest physician. Having once used it, he can never be without it again.

The Suppression of Tuberculosis, together with observations concerning pathogenesis in man and animals, and suggestions concerning the hygiene of cow stables and the production of milk for infant feeding, with special reference to Tuberculosis. By Prof. E. VON BEHRING, University of Marburg. Translated by Chas. Baldwin, M.D. New York: Jno. Wiley & Sons. London: Chapman & Hall, Limited.

This small book embodies Behring's opinions on tuberculosis, with which readers of the PRACTITIONER are already familiar. The principal article is translated from a lecture delivered in Cassel, September 25, 1903, which was criticized especially in Germany.

The Mother's Manual. A month by month guide for young mothers. By EVELYN LINCOLN COOLIDGE, M.D., Visiting Physician of the Out-Patient Department of the Babies' Hospital, New York; formerly House Physician of the Babies' Hospital, New York; Physician in charge of the Babies' Clinic of the Society of the Lying-in Hospital of the City of New York. Illustrated. New York: A. S. Barnes & Co. 1904. Price, \$1.00 net.

This little work by a woman who has won eminence and wide reputation during her connection with a New York hospital has much to commend it. It deals with the care and treatment of the infant month by month for the first year, then by half years up to the fifth year. Chapter seventeen, "The fourth to the seventh year," concludes with the following sane remarks on *growing pains*: "When a child complains of pains in the legs or other parts of his body the mother usually thinks he has 'growing pains' and does not pay much attention to them. Now, in children over four years old these pains often denote rheumatism, and the child who frequently complains of them should be taken to a doctor for treatment."

A Text-Book of Diseases of Women. By CHARLES B. PENROSE, M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Fifth Edition, thoroughly revised. Octavo volume of 539 pages, with 221 fine original illustrations. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, \$2.75 net. Canadian agents: J. A. Carveth & Co., Toronto.

When a text-book reaches its fifth edition in a few years it is almost a certain sign that it is accomplishing its purpose. Although primarily designed for students this volume is of great use to practitioners as well, because the teaching is thoroughly up-to-date and the material so well arranged as to be quickly got at. The new edition is, of course, an improvement on the others. Much new matter and some original illustrations have been added, making this work one of the best of its kind.

Enlargement of the Prostate: Its Treatment and Radical Cure By C. MASSELL MOULLEN, M.D., Oxon., F.R.C.S., Senior Surgeon and Lecturer on Surgery at the London Hospital; Member of the Council of the Royal College of Surgeons; Examiner in Surgery in the University of Cambridge; late Radcliffe's Travelling Fellow; Fellow of Pembroke College and Examiner in Surgery in the University of Oxford; and Hunterian Professor at the Royal College of Surgeons. Third Edition. London: H. K. Lewis, 136 Gower St., W.C. 1904.

The third edition of this work is to hand. Nothing but the most favorable comment can be made upon anything that this author writes, as he is most particular to go into minute details and description of anatomical and physiological functions. While he does not favor the Freyer operation for the removal of the prostate, we feel that in an edition published in 1904 the

suprapubic operation should have a little more elaborate description, because we cannot gainsay the fact that Freyer has made a big improvement in the technique of prostatectomy.

The volume should be on the shelves of all surgeons who attempt any of the prostatic operations.

Electric-Static Modes of Application, Therapeutics and the Use of Roentgen Rays. By WILLIAM BENHAM SNOW, M.D., Professor of Electro-Therapeutics and Radiotherapy in the New York School of Physical Therapeutics; Editor of the *Journal of Advanced Therapeutics*; late Instructor in Electro-Therapeutics in the New York Post-Graduate School, etc. Second Edition, revised and enlarged. Contains more than one hundred illustrations, including ten full-page half-tones showing the various methods of posturing and treating conditions. Price, cloth bound, \$3.00. New York: A. L. Chatterson & Co., 97-99 Reade St.

This volume embraces the whole subject. It deals with all the conditions that electricity could possibly be put to and with some that it shouldn't. There are so many good things in the book, however, that it is not fair probably to condemn it entirely, but for anything from pain in the toe to inflammation in the brain electricity appears to be the only remedy that is of use.

The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A.M., M.D., Professor of Dermatology in the University of Illinois; and EGGENE W. CALDWELL, B.S., Director of the Edward N. Gibbs Memorial X-ray Laboratory of the University and Bellevue Hospital Medical College, New York. Handsome octavo volume of 690 pages, with 195 illustrations, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

This excellent work has attained the distinction of two large editions in one year—a proof not only that such a work was needed, but also of the book's practical value. The vast amount of literature accumulated during the past year has been very carefully digested and the latest knowledge and advancements incorporated. A practical feature of the work lies in the fact that nearly all the illustrations represent actual clinical subjects showing the benefits of the X-rays at various stages of their application. The chapters by Caldwell give full details regarding the use and management of the apparatus, the text being fully illustrated with many photographs and drawings including four full-page colored plates. The second edition has been brought strictly down to date, especially the case histories cited; and by the addition of much new matter and a number of new illustrations, the usefulness of the work has been greatly extended.

We are very pleased to notice that the author has pointed out the great difficulty with which kidney-stones are recognized and located. We note with pleasure their statement showing the exact status of this work and how well it is being recognized.

We have had such difficulties with kidney-stone work and have met with such emphatic statements by certain radiographers that they always can locate them, that it is exceedingly pleasing to find authors of the ability of Pusey and Caldwell placing the matter in this thoroughly honest way. The illustrations in the book are exceedingly good and the typography is excellent, but we really believe that it would be very much better if it was printed on a less heavy paper. Coated and heavy paper is always disagreeable to handle, notwithstanding the fact that it costs more.

It is a work that every surgeon should have on his book-shelf.

Regional Minor Surgery. By GEORGE GRAY VAN SCHAIK, Consulting Surgeon to French Hospital, N.Y. Second Edition, enlarged and revised. 228 pages, bound in cloth, profusely illustrated. Price, \$1.50. International Journal of Surgery, Co., N.Y.

The object of the author has undoubtedly been to supply a volume that will be of aid to the student and practitioner for minor work, and he has very wisely omitted all reference to major work. A peculiar typographical error occurs on page 10: "A piece of septic gauze is placed." There can be no doubt about what is meant: "A piece of aseptic gauze is placed." We find that in a previous edition the word "aseptic" appeared, which shows that it is purely a typographical error. The description and illustrations of the operation on hare lip are particularly good, embracing in a manner not shown in any other work, the necessity of keeping a little superfluous tissue to form a nipple on the lip, which will retract in time. This possibly is the most important detail in this operation. There are so many good points that it is hard to specialize. The whole work is one that we can thoroughly recommend.

Taylor on Genito-Urinary and Venereal Diseases and Syphilis. A Practical Treatise for Students and Practitioners. By ROBERT W. TAYLOR, A.M., M.D., Clinical Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York. New (third) Edition, revised and enlarged. Octavo, 757 pages, with 163 illustrations and 39 plates in colors and monochrome. Cloth, \$5.00; Leather, \$6.00; Half Morocco, \$6.50 net. Philadelphia and New York: Lea Brothers & Co., Publishers. 1904.

This is a most comprehensive treatise and Dr. Taylor has brought it up-to-date. Our review of the previous edition was made complete. We hope, however, that the colored illustrations will be omitted in the future editions. They do not convey the idea that is intended, and in the writer's opinion are a great detriment to so beautiful a volume. The black and white half-tones, however, were most admirable, and they illustrate the subject so beautifully that they are of real value. We are pleased to note and commend the author's condemnation of the routine use of the endoscope. It is so awkward to have a patient sent

to you for endoscopic examination of which you do not see the necessity, yet you feel it your duty to make the examination because the physician has promised the patient that that will be the procedure at the consultation. It is a great instrument and its use should be encouraged, but its abuse is one of the things that we should learn to recognize. There are many other points that the writer could comment on, but we feel that it is superfluous. When we say that there is no other work in the English language that handles the subject so completely we have fully covered the ground. It is a volume that all physicians and surgeons should possess.

Some Problems of Presbyopia.

At the Ophthalmological Section of the American Medical Association Dr. George M. Gould, of Philadelphia, presented the following statements based on his experience:

1. In oncoming presbyopia cycloplegia generally necessary to obtain the static refraction on which the presbyopia is based.

2. Age at which correction should be first given depends on the pre-existing refractive error.

3. Correction of error often dependent on amblyopia from disease.

4. Less accommodation may condition the amount of presbyopic error.

5. Onset of presbyopia may be delayed by hypertrophied accommodation.

6. Age of correction of presbyopia and degree of error depend on amount of near work.

7. Presbyopes who misstate age may suffer if oculist does not detect error.

8. Occupation may necessitate higher and earlier correction than usual.

9. Quality and power of light must be considered.

10. Position of body and head in near work may be harmful.

11. Effect of general health, vitality, vigor of will and of body.

12. Failure to cure reflexes of eyestrain may be due to want of bifocals.

13. Eye glasses being more prone to maladjustment than spectacles may cause failure to relieve symptoms or sequels of eyestrain.

14. Premature presbyopia, possibly years before usual age, may explain failure to relieve symptoms when none of the preceding causes will do so.

15. Systemic disease, and not presbyopia or eyestrain, may cause symptoms. The writer reported a number of cases illustrating his argument. He uses cycloplegics up to the age of sixty.

J.T.D.