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CANADA

MEDICAL & SURGICAL JOURNAL

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Original Communications.

PHTHISIS AND ITS VARIETIES :

A LECTURE DELIVERED AT MONTREAL,

BY ANDREW CLARK, M.D., F.R.C.P., LOND.,

Physician to the London Hospital, &c., &c.

It was signified by circular, signed by Dr. Geo. W. Campbell, the Dean of the Medical Faculty of McGill University, and addressed to the profession at Montreal, that Dr. Andrew Clark, who had come to this country on the staff of H. R. H. the Princess Louise, would deliver a lecture on the subject of Phthisis. In response to the general invitation extended the Lecture Room of the Natural History Society was filled with medical practitioners of both nationalities, as well as with the students of the three medical schools in this city. A number of coloured drawings illustrative of cases that had come under Dr. Clark's observation, were placed on the table.

Dr. Campbell, in a few words, introduced the lecturer, who said :—

When I desired to have the privilege of laying these drawings of phthisical lungs before you, and of setting forth, in short and simple outline, the views which I have formed concerning the varieties of phthisis, I did not presume to think that in a place so distinguished for its additions to science as this is, and in the presence of persons, many of whom have contributed and are contributing to that distinction, I could say anything which would appear new, still, I desire to lay these drawings before you, and to set forth the views which I have formed, after long study of the subject in order that I might have the benefit of your friendly criticism, and learn how far your own experience corroborated or confirmed my own conclusions. It is not

my intention—indeed it would be out of place—to enter into any critical or historical sketch of the history of the various theories which have been promulgated respecting phthisis. I shall proceed without further preface, at once, to the heart of my subject, and endeavor in the fewest words and plainest manner to lay before you the conclusions at which I have arrived.

By phthisis I mean that assemblage and progression of symptoms, due to suppurative or ulcerative destruction, of more or less circumscribed non-malignant deposits in the lung. I shall not pretend that this definition is perfect, but I claim for it that it is a good working definition, and has this enormous advantage, that it involves no hypothesis, and whatever our views of phthisis may be, we may retain the name whilst the idea may change. You will observe in this definition that I have set entirely on one side the disease with which we are all familiar, under the name of Acute Tuberculosis.

The chief thing I have to say about that disease, before dismissing it, is this:—I think it has no special relations to phthisis at all. In its methods of approach, in the phenomena which attend its progress, and in the changes which we discover in them after death, in the state of the organs during life, it exhibits all the characteristics of what we call zymotic disease. I look upon acute tuberculosis as a sort of fever; which has for one of its anatomical expressions the little things called tubercles. If I appeal to the experience of any one present who has had the opportunity, not often acquired, of examining a number of cases of acute tuberculosis, I am sure he will agree with me that acute tuberculosis rarely issues in what we call phthisis, or in any disease which would come within the terms of the definition I have made. Acute primitive tuberculosis, beginning often, either in children or adults, in apparently perfect health, producing fever, with a sort of capillary bronchitis, making rapid progress, marked by irregular fever, usually terminates in death in from three to six weeks.

Now, I might add, that having been occupied at the same time as Villemin in performing experiments upon inoculation, and having also tried other methods of producing tuberculosis

as well as by inoculation, I have come to the conclusion that the disease produced by inoculation is not a true tuberculosis. In all my experiments on animals, I found that with decent care, the so-called tuberculosis produced, invariably disappeared, that the progress of the malady, whatever it was, was unattended except at the beginning by any fever; that in animals inoculated, a disease is produced which does not appear to affect the general health, and which within five or six weeks disappears, leaving the animal as well as before. You will agree with me that this cannot be called acute tuberculosis in the same sense as that other malady, which is sudden in its commencement, rapid in its progress, profound in its constitutional effects and terminates almost invariably in death. When we examine the lungs of the bodies of patients who have died of phthisis, we may, without any undue refinement, classify these lungs under three groups. In the first group, we shall find that the dominant destructive element is tubercle, and its secondary consequences. In the second group we have pneumonia as the dominant anatomical element. In the third group the dominant anatomical element is fibroid tissue. I have purposely used the term "dominant element," to protect myself against any adverse criticism which has no just foundation.

The lung is a complete organ, and several anatomic elements enter into its constitution. When these are irritated by any foreign body, each comports itself after the manner of its kind; so' that with one irritating agent, you may have different anatomical results. If tubercle is deposited in the lung and the patient is susceptible of being irritated by it, we know that two secondary consequences prevail,—one, a form of pneumonia,—the other, some form of fibroid change, and just as the one or other of these secondary results prevail in the future progress of the case, rapid and febrile if the pneumonic, slow and free from fever if the fibroid prevails. So true is this, it has almost given rise to an axiom with respect to the chronic phthisis, that in tubercles, *per se*, it never kills; it is the tubercle plus the secondary effects of the tubercle, which is fatal.

a. Now, as each of these three groups has a distinctive history;

as each differs from the others in the mode of origin, progression, consequences and issues, I think it ought to have a distinctive designation. Furthermore, that we may introduce no new names when old ones will suffice, and that we may avoid, in naming, any theory about the thing named, I shall call the first group, in which tubercle is the dominant anatomical element, *tubercular phthisis*, the second group in which some form of pneumonic exudation is the dominant element, *pneumonic phthisis*, and in the third group in which a fibroid element is dominant *fibroid phthisis*.

b. Now, by many observers in France and by some in England, it will be asserted that this classification is artificial and unreal; that the histological elements of tubercle are to be found in caseous pneumonia which is only a tubercular infiltration; that the fibroid changes are but transformed tubercles; that the whole three are structural homologues and but different expressions of one pathological state and nature.

Very well, although I regret these assertions as incorrect, and believe that I could demonstrate their inaccuracy; yet, for the sake of argument, I will admit their force, and will seek in another direction for such an argument as may be conclusive as to the existence of the varieties of phthisis which I have named. I have not far to go in my search. I aver that the true criterion of difference between pathological products is to be found much more easily in the life-history which accompanies their evolution than in the anatomical elements which form their final expression; and when I pass from the dead-house to the wards, and inquire if there is anything in the clinical or life-history of phthisis which would justify its division into the varieties named, I discover, as I believe, a just answer in the affirmative. If this be so, can the grounds of those distinctions be so expressed as to be capable of recognition by ordinary clinical observers? Within certain limits yes!—In the very advanced stages of lung disease when the symptoms are more directly due to mere damage of function than to the nature of the damaging agent, recognition is sometimes difficult; but in the early stages with due care it is easy.

There is a second difficulty—partly one of terminology—in forming a clear conception of the varieties of phthisis.

When we speak of tubercular phthisis, there is no difficulty in understanding that we mean by it, the assemblage and progression of symptoms caused by the ulcerative obstruction of the lung by tubercle and its secondary effects. But when we come to pneumonic phthisis, we are at once met with a considerable degree of complexity, not only in the nature of the thing, of the pneumonia itself, but in the nature of the terminology which has been adopted. I will try to make it plain. There are three forms of pneumonia which we will all readily recognize. First, there is the common inflammation which attacks the base of the lung, which begins with a little pain, is followed by crepitation, tubular breathing, and, which terminates in six or seven days, and is generally removed. There is a second form of pneumonia, altogether different, which affects instead of the lower part of the lung, the upper part, which instead of beginning abruptly by fever, sometimes begins insidiously with a little fever and continues its march from the summit of the lung downwards. The characteristic of this pneumonia is a kind of cheesy stuff, exactly like that we find in the ripe scrofulous gland.

Between these two forms of pneumonia and connecting them, as it were, together, is a third form, what is called catarrhal pneumonia, which is common in children, and is often a result of capillary bronchitis. There are these three forms of pneumonia, and every one of them with different degrees of liability, is capable of developing phthisis. Every one of these forms is capable of giving rise to exudations which, when not absorbed, and undergoing suppurative destruction, come within the definition of phthisis. The common pneumonia may do this, although it does so very rarely, the cheesy pneumonia does it commonly, the catarrhal with an intermediate degree of frequency.

We have here a considerable complexity in enquiring into the definitions of these groups of phthisis. I will not go too closely into it at present, because it would occupy too much time, and blur the outlines of a picture I wish to keep clear, I will confine myself to illustrations of croupous and of cheesy pneumonic phthisis.

Are we justified clinically in distinguishing these three groups of phthisis? I think so. I will roughly sketch the distinguishing clinical characteristics of these groups.

First of all, there is the tubercular phthisis produced by the destructive agency and the consequences of tubercle in the lungs. In chronic phthisis, mere tubercles never kill, and if one could stop tubercles from producing secondary pneumonia, one could keep the patient alive, and if free from fever complications as well, I see no reason why the patient might not live as long as any one else. With regard to this first group, the main distinguishing point about it, clinically, is, as far as my experience goes, that whilst the local symptoms are, at the beginning, exceedingly few, the constitutional symptoms are many and profound. Here is a case—a girl about 18 years of age—with a history of phthisis in the family, has large eyes, is flushed easily, and for some time has been getting out of health, losing strength and colour. The doctor is called in; he examines her and finds no evidence of local disease, but that the pulse is more frequent than natural, temperature higher, and breathing quicker. He sees a case where obviously the constitution is gravely distressed and no local foundation to cause the distress. The patient gets thinner and weaker; bye-and-bye a little dulness is found, and the chest becomes flattened, then the ordinary symptoms of phthisis set in, and though they improve from time to time, the main progress is almost invariably downward, and in a period of from two to four years, the case terminates in death. This is an ordinary outline of tubercular phthisis. It is marked at the beginning by the slightness of physical and the prevalence of constitutional symptoms. It is also, as I think, marked by the want of response to almost any treatment.

Here is the second form, a case of pneumonic phthisis. This is the drawing of a lung of a very well-known case in the London hospital, Peter Mackintosh. We examined him and found the usual signs of pneumonia with these modifications, there were diminished tactile vocal fremitus; feeble breath sounds, and diminished vocal resonance.

Many of these symptoms might have suggested the idea of pleuritic effusion, but as there was no displacement of organs, no friction, no variation of dulness with variation of position, and as there was profound constitutional disturbance I knew that I was dealing with a case of pneumonia; but said to my class that the exudation would very probably fail to be melted or absorbed.

The pneumonia came to an end about the usual time. There was no absorption of exudation; he remained months under my care without the smallest change in the solidity of the lungs. About the end of nine months he wanted to go out. After a while he came back again, having caught cold, and soon after the lung began to break, and he continued with symptoms of phthisis for nearly two years altogether under my care at the London hospital. A curious complication occurred. One of my big guns was that, whenever a pneumonic exudation is unabsorbed, within a month of the breakage you will get tubercles in the other lung. In Mackintosh's case, within a month there arose symptoms of disease in the opposite lung, but on *post mortem* examination, I found a very beautiful example of lobular pneumonia, and no tubercles. This was the first time I had not found tubercles produced by the suppuration of unabsorbed deposit; you will recognize such cases of pneumonic phthisis by the fact that there has been no absorption of the deposit, that there is more or less large solidification at the base of the lung, and that that exudation, instead of disappearing, begins bye-and-bye, to break up giving rise to fever and the other symptoms of phthisis.

The second class of cases of pneumonic phthisis is more difficult to recognize. There is no history in it of insidiously rapidly failing health, as in the case of tuberculosis; on the other hand, there is no history of acute attack which may be considered as pleurisy, but there is a history of cough creeping on with a little fever, and increasing without any material impairment to the general health. You shall see a fair man or a fair woman, with light eyes, florid cheek, tolerably well nourished body, few complaints to make except with respect to cough and expectora-

tion. You will find that whilst constitutional symptoms are exceedingly few, the physical signs are very many. You will find the middle part of the lung very solid. Sometimes instead of being absorbed or undergoing fibroid change, the lung disintegrates, the cheesy matter breaking down into small cavities, and then it progresses like an ordinary case of phthisis. In speaking of the clinical character of these cases of caseous pneumonic phthisis, they are not so very clearly expressed as either the tubercular phthisis, or the common pneumonic phthisis; but keeping in view its characteristics, the considerable extent of uniform consolidation at, say, the upper part of the lung with the comparative slightness of the constitutional symptoms—the occasional melting and absorption of the deposit, or its conversion into fibroid stuff—and the often scrofulous history of the patient, you will not fail to recognize these cases during life.

I must introduce another element of complexity. I have spoken of cases of pneumonic phthisis as chronic, but sometimes it is an acute disease. Cases of this kind are to be recognized immediately by the circumstance that the disease occurs in the upper lobe, progresses rapidly from above downwards, is accompanied by fever, and either terminates at the end of a fortnight, or within a few weeks in cavities. This form of case of pneumonic phthisis, is the form which used to be called "galloping consumption." I pause to recur to the anatomical question. It is sometimes said by French anatomists that there is no distinction in point of fact between the histological record of the tubercular and the caseous deposit. In the common tubercle, you have the constitutional symptoms being in a marked degree evident at the beginning. In the caseous phthisis you have a very large amount of local lesion with a small amount of constitutional disturbance. It must follow that tubercle is a very curious thing, that for some reason not apparent, the less the anatomical the more profound the constitutional lesion, and the more the amount of physical change, the less the constitutional effect. This seems absurd, and I know of no better argument than this to adduce

against the argument that they are identical. I might adduce a second, not so important, because unhappily, not so capable of being used, namely, that I very much doubt that grey tubercles are really absorbed. I do not doubt they may form into fibroid tissue, but that is a rare occurrence, after we have recognized that they are present in any considerable amount I have seen caseous exudations occur in the summit of the lung and disappear. Even Laennec, himself, admits that in certain circumstances, tubercular infiltration disappears.

Of the clinical character of fibroid phthisis, there can be no doubt whatever. It is marked, as a rule, by inflammatory origin. I have in the London hospital now, three cases upon which I was occupied for some weeks lecturing before I came across the Atlantic. These will illustrate better than an abstract description, one of the origins of this disease. The first man had these symptoms—he is about thirty-six years of age—his right side is extremely contracted, the heart beats under the second rib, he is pretty well in his general health, has no fever, but suffers from a paroxysmal cough, which ends occasionally in vomiting, by which act he ejects a glary mucus, and sometimes a foetid pus. This is fibroid phthisis, because on examining him, there are found signs of two small cavities near the summit of the lung, not dilated bronchical tubes, and their areolæ of elastic tissue from the pulmonary alveoli in the expectoration.

One of the other cases has these characteristics. He is a man about 52, has been eight months under observation, came into the wards of the hospital with a common right pleurisy, had a little effusion at the base of the lung. I said to my class, we will put him to bed, and by rest and diet the effusion may go and he will be well. The effusion went away and when I examined him, I found a to and fro friction. I thought nothing of it, but a fortnight afterwards this to and fro friction was running up the lung and very soon went all over the lung: Notwithstanding all I could do with iodide of potassium, mustard plasters, &c., it would not be influenced. It went on for months and simultaneously with its continuance in the latter

stages of its history, the lung began to contract, the right side distinctly contracted, the ribs fell in, the neck began to swell, the heart was drawn down, bye-and-bye and he began to have a little spinal curvature. In this state I left him. This form of fibroid phthisis is to be recognized by its mode of origin; by the contraction of the lung; by the paroxysmal character of the cough; by the absence of fever; by the slow progression of the disease, and by the displacement of the heart towards the contracted side.

Here is an engraving of a lung which first taught me this form of phthisis. The first patient I had at the London Hospital was a man of 15 stone in weight, a bricklayer, who complained of a cough and spitting up blood. He had been surgically treated for a fractured rib some weeks before. I watched him for a year. Step by step his right side began to contract, his cough became more and more paroxysmal, curious changes appeared in the state of the blood vessels, the right side of the neck became smaller, great veins traversed the right side of the thorax, and the right arm became swelled. In this state he complained of the right side, had a paroxysmal cough and an occasional foetid expectoration, difficulty in breathing, and inability to sleep. Everybody said he had a tumour or cancer. I began to have my own faith shaken, and to believe he had some sort of tumour, although I could not reconcile the symptoms with any disease I knew. I felt satisfied I had to do with a lung which was unfit by some sort of fibroid change. At last he died from a little cold, and he willed his body to be examined by the doctors. The pleura was found an inch in thickness, in addition there was an inch of fat, on the top and side of the lung. There was no tubercle anywhere, no evidence of disease anywhere except that this right lung was reduced to a very small concise form by fibroid change, was coated with lymph, and the lung was eaten into small cavities.

This is a drawing of the lung of a man called Peak. He was brought to me by Dr Pollock of Charing Cross Hospital. This is the case of a lad about 18 years old, who had recurring bron-

chitis and pleurisy of the right side. The whole of his malady was obviously on the right side. He had a contracted right chest, extreme dulness, feeble breath sounds, and hard paroxysmal cough, with foetid matter. His heart instead of beating fifth and sixth, beat a third from the right rib. It was a tubercular case of fibroid phthisis, with a little irritation of the bronchial tubes. It was exhibited to the Clinical Society; unfortunately it was sat upon by three gentlemen connected with the hospital, who could not see anything remarkable in it, said it was ordinary tubercular phthisis with contraction. Peak died, and, after some considerable difficulty, Dr. Pollock and I succeeded in getting a *post-mortem* examination. We found no disease except in the right lung. The lung was reduced about one-fourth of its natural bulk, was perfectly solid, permeated by one or two dilated bronchial tubes. There was nothing which could be construed into tubercular deposit.

It will be obvious that anatomically there are these three groups met with in lungs of patients dying of phthisis. I hope I have said enough to prove that they are capable of recognition during life, that they are not merely pathologically curious.

If that be so, my contention is that as these groups of phthisis being distinct in their origin, different in their progress, responding differently, ought to be characterized by distinctive names corresponding to treatment.

One other point. These are the three great groups of phthisis, but corresponding to our definition there are other forms which, as pathologically and clinically curious might be mentioned. There are on the table two drawings taken from patients who suffered from the symptoms of phthisis. In one the destructive agents are syphilitic deposits; in the other hæmorrhagic extravasations.

I cannot hope to have solved many of the difficulties surrounding this complex subject; but if I have succeeded in removing some obscurity and in opening fresh paths of inquiry, I have not in vain occupied your time.

DR. HOWARD asked: Have you noticed whether tubercular

phthisis and caseous pneumonic phthisis occur in children of the same family? Are you of the opinion that they may be alternative complaints in the same family? Are they equally transmissible by inheritance? Have you ever met a case of primary fibroid phthisis not of inflammatory or tubercular origin? Are there means by which, in a case of pleurisy or pneumonia, one might early suspect that this ulterior change of fibroid transformation might be set up; if so, how shall we recognize, at an early stage, the future life history of the original disease? Can you distinguish those cases of chronic tubercular phthisis or caseous pneumonic phthisis, which undergo fibroid transformation from those cases of fibroid phthisis which begin in the *pleura* or as a consequence of pneumonia? Or, in other words, can you distinguish the fibroid transformation which occasionally occurs in the common forms of phthisis from the fibroid transformation which follows pleurisy, on the one hand, or pneumonia on the other?

DR. CLARK answered:—The first question is do I recognize as a fact that tubercular forms of phthisis and caseous forms of phthisis alternate in same family, and furthermore that people with caseous phthisis may beget children subject to tubercular phthisis? I recognize it fully. It is quite true, and I do not know if it would be fair to assume it as an argument against the position. It is not to my mind. I readily admit, that in children of one family, I have seen caseous pneumonia in one and evidence of tubercular in another. I admit further, as it has been put, that the offspring of persons with caseous phthisis, may be tubercular. Even if I were not able satisfactorily to answer that argument, I should still say that the greater proofs of distinction ought to overrule what that fact suggests. The great facts of distinction are that tubercular history is almost unqualifiedly bad; the caseous history is relatively good, and the progress appears to be quite distinct from that of the other. While the tubercular mischief is scarcely amenable to treatment, the caseous is amenable to treatment. I apprehend that in these cases, the real explanation lies in the fact, that in these instances, during the life of a family, what is possessed by each

of them is a vulnerability of lung, and that circumstances, distinctive in each case, determine in one tubercular, in another caseous phthisis. Chronic tubercular consumption is begun in the body of a man by the transfer of something from the surfaces below the lung or in the body.

The little cellular work is determined by the conveyance to the pulmonary capillaries of something manufactured in the blood or got in the intestinal service.

The two diseases from their very origin, seem to be so distinct, that I am disposed to give them a distinct name. I cannot contend that I have fully solved the difficulties of the subject. I think there is sufficient ground, even on the anatomical side, enough on the clinical side for recognizing them as distinct but names. The second question is: Have I ever met with cases of primitive fibroid phthisis? I am not quite sure. In all the cases of which I have been able to keep accurate records, I am bound to say there is always some history or another of dry fibrous pleurisy, frequent attacks of bronchitis, syphilis, &c. Such a thing may occur, but speaking entirely from my own observation, I am not sure that I have ever seen a single primitive personal case of fibroid phthisis. The third question is, whether there are any means in a given case of pneumonia or pleurisy of determining whether fibroid change is likely to occur. I think there are. If I had a case of pneumonia, and if this case went on past the usual period, and there were no signs of amelioration I should say one of two things now will occur: Either this exudation will break down and we shall have evidence of it in the physical and the constitutional symptoms, or it will wither back into a sort of fibroid mass, and the evidences of that, constitutionally, will be inactive; there will be that the patient will get greatly better and declare there is nothing the matter. Locally, the evidences will be feeble breathing, slight and increasing contraction. If I had a case of simple dry pleurisy, and it went on, I should say if it receives the remedy of rest and restricted movement, the chances are it will go on and produce a fibroid change in the lung—how far I do not know. If the man is a drunkard, it will go on to fibroid phthisis.

I guarded myself against the possibility of misinterpretation by stating that when these cases were advanced it was exceedingly difficult to discriminate, because the symptoms offered were much more referable to mere destruction of the organs than to the destroying agent. If you find the disease begins in the lower part of the lung and progresses slowly upward and has been marked by fever and prostration and loss of flesh and strength and colour, if you find the summits of the lung free, you may safely say you are dealing with an ordinary case of fibroid phthisis. If, on the other hand, you find none of these things, if you find the summit of the lung affected, I know of no means except the history of the case to distinguish between the two. The history of the case, if it were one of sudden origin, of a presumable inflammatory character would lead to the conclusion that it was fibroid; the insidious origin of the disease would suggest tubercular. Further, if fibroid phthisis is not always confined to one lung, it is in the majority of cases. I have, even in cases of tubercular phthisis, the appearance of a secondary fibroid combination. So much is this the case, that some people dealing with tubercular phthisis, recommend their patients to become drunkards to prolong their lives.

DR. OSLER asked for a sketch of a few of the principles of the treatment of phthisis.

DR. CLARK said: I am afraid I shall lose what little character I may possibly have gained. I pretend to no special knowledge of the treatment of phthisis. Whenever I encounter any chronic disease, I deal with it on this principle. Every organism has a righting, a repairing, and a resisting power, and it exercises these powers in proportion as we give them fair play, I proceed always in a chronic case to determine what will be fair play for the organism suffering under this chronic malady. Hence, diet, air, attention to the general functions, form always the first points of treatment in such case. Whilst we are ready enough to give a liberal supply of medicines, we too often overlook those minute details of daily life which, in the end, make and unmake life. Of tubercular phthisis, I have very little to say. The main affair is the general health. Lowering the tendency to resistance permits the advance of the disease with

which the patient is threatened. If I can keep him free from colds and consequently pneumonias, I am practically doing as much for my patient as I can. There are no principles in medicine; it is one of the most unprincipled of arts. Every organism is somehow or other different from every other, and it contains within itself the laws for its own management. The wise man, he who has the gift as well as the knowledge of healing, is he who with an instinct is ready to discover the laws of the organism with which he is dealing and governs himself accordingly. It would be foolish to say in detail how I should deal with a case of tubercular phthisis. Regulated diet, moderate use of alcohol, air, exercise, avoiding colds are the principal means to be used. I have tried this medicine and the other, hypophosphites, arsenic, iron, &c., but I cannot say, looking at the whole with an honest, critical eye, I can lay my finger on any remedy with any specific influence in it.

As regards caseous pneumonic phthisis, I believe in the efficacy of treatment. In an acute case, I have great faith in treatment. I put my patient to bed and keep him there until the temperature falls below 100° however long that may be. The second rule in case where the secretions are scanty, the tongue dry, temperature high, pulse quick, I satisfy myself with a free use of salines and with counter irritation. If I find the patient remaining feverish, I give up my citrate of potash, and put a drachm of antimonial wine into a tumblerfull of water and make him sup that during twenty-four hours. The skin breaks out into perspiration, tongue becomes moist, expectoration usually begins; then I immediately stop and treat my patient with effervescing alkaline salines with quinine and citric acid. I next feed him with milk and beef tea. We often forget, practically, that liquid food goes quickly to the lung. In cases where exudation is going on in the lung, we minister to it by filling our patients with fluid food at short intervals. In rapidly extending pneumonia, I have seen exudation hurried to a fatal end by the administration of fluids every half hour. Food should be given in a more solid form and not oftener than every four hours. This is one of the forms in which I believe alcohol to be extremely useful. In cell proliferation, alcohol is useful, and I would extend it to scrofulous diseases generally.

CASES TREATED BY THE THERMO-CAUTÈRE.

By T. G. RODDICK, M.D.

Professor of Clinical Surgery, McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

I have now employed the very ingenious instrument of Dr. Paquelin, known as the Thermo-Cautère, or Gas Cautery, in such a number and variety of cases in both hospital and private practice, and have obtained such admirable results, that I feel bound to advocate its claims as a valuable surgical instrument before the members of this Society. Too great praise, I think, cannot be awarded Dr. Paquelin for his invention, as now we are in a position to obtain the excellent results that no doubt followed the employment of the actual cautery in the hands of the older surgeons, without the dread inspired by the preparation and general surroundings of the *fer-rouge*.

The instrument I show you is manufactured by Messrs. Collin & Co., 6 Rue de l'École de Médecine, Paris, and cost me there the sum of one hundred and forty francs. It consists, as you see, of an ordinary spray-bellows, a spirit lamp, and a flask furnished with a perforated rubber cork, in which benzoline is held. This is a hollow handle, insulated with wood to protect the hands, and to which can be attached any of these platinum heads corresponding to the cautery irons found most useful in practice. Each of these parts is hollow, and must be first heated to blackness in the flame of the spirit lamp, when with the aid of the bellows a blast of benzoline vapour is introduced, which has the remarkable property of maintaining the platinum in a condition of vivid incandescence. This heat can be maintained for an indefinite time by a continuous slight compression of the bellows. Every instrument is generally supplied with three platinum heads, namely, a probe or stylet for touching minute points of ulceration, or for cauterizing sinuses, &c., a hammer for coarser work, and a blunt knife for cutting purposes. This form of knife, with a sharp cutting edge at the point (the gift, by the way, of my kind friend Dr. Ross), is a more recent

addition, and will be found very useful for dividing pedicles or searing nævous growths. Curved knives, scissors, and an ecraseur or guillotine, may now be obtained from makers in good standing. The whole apparatus is packed in this neat box, and will be found exceedingly handy and portable.

There are many little points in connection with the working of the instrument, such as the amount of heat required for a certain purpose, and the pressure that should be used, which experience only can teach. Thus in order to divide skin and muscular tissue, a red heat is required; while for the sealing up of bleeding vessels, an almost black heat is the best. It is surprising what little pain is experienced after the destruction of even a large surface of tissue. In fact, I believe this is the most painless of all escharotics, not excepting nitric acid which hitherto, perhaps, has held the palm.

The following cases have been taken indiscriminately from a number of clinical reports in my possession, although some of them are the most important I have had, as illustrative of the uses to which this valuable instrument can be put in surgery:—

CASE I.—*Lupus*—(Reported by Mr. Mills.)—Moses Friedman, aged about 40, was admitted into the General Hospital November 23, 1877, under my care, on account of a number of lupoid sores, one nearly as large as the palm of the hand, situated over the left back. The scars of an extensive ulceration, confined to that side, were very marked. There was no history of syphilis. Chloroform being administered, the knife of the cautery was applied in a cutting manner to the patches, and lead lotion, followed in twenty-four hours by poultices subsequently applied. The sloughs separated in three or four days, and healing rapidly went on, although it was thought advisable, in about ten days, to reapply the cautery to some suspicious spots. Within three weeks from the time of operation he was fit to be discharged.

CASE II.—*Prolapsus Recti*.—(Reported by Messrs. Gardner and Smith).—Catherine Devine, aged 60, was admitted October 29, 1877, suffering from an enormous prolapse having the

character more of an invagination of the gut. She attributed the condition to obstinate constipation, alternating at times with diarrhoea. The bowel protruded fully four inches, the sphincter being of necessity very much distended. Chloroform was administered, and the part scarred in several places with the platinum knife in the long axis of the tumour, care being taken to go through the entire thickness of the mucous membrane. The protrusion was then returned, a large tent of lint soaked in carbolic oil was introduced into the bowel, and the buttocks strapped closely together with adhesive plaster and a pelvic belt. A grain of opium was given night and morning. On the tenth day an enema was administered, and a copious stool obtained without disturbance of the bowel. The patient was discharged on the fifteenth day, with instructions to attend to the condition of the bowels.

This woman was sent to me by Dr. Reddy about a fortnight since with a return of the prolapse, but not nearly to the same extent as before. A few days ago I scarred the protruding gut thoroughly, and then performed an operation for narrowing the anal orifice, which promises to be very successful. I made two incisions extending from the transverse diameter of the anus to the tip of the coccyx, removing the skin, subcutaneous tissue, and perhaps a few fibres of the sphincter. The edges of the gaps were brought together with wire sutures. Where before the entire hand could be passed into the bowel with ease, two fingers are now with difficulty introduced, and when union is more complete the contraction will still be greater.

CASE III.—*Sciatica*—(Reported by Mr. Sutherland.)—Mary Foley, servant, aged 20, was admitted June 6th, of this year, having suffered pain for some weeks in the course of the sciatic nerve. The ordinary remedies had been tried with little benefit. The cautery was applied in lines down the course of the nerve nearly to the knee. The pain rapidly disappeared, and she was discharged cured on the seventeenth day.

CASE IV.—*Amputation of the Penis*.—An old French-Canadian, aged 72 years, was admitted July 2d, having an extensive epithelioma of the penis, involving the organ up to within

three-quarters of an inch of the pubis. The patient was placed under chloroform. Assisted by Dr. Wilkins, I then first opened the urethra with a scalpel in the healthy portion, and introduced a No. 12 elastic catheter into the bladder. Then with a sawing movement of the cautery knife, I removed the entire organ flush with the pubis, leaving a little more of the spongy portion than the corpora cavernosa. Not a drop of blood was lost. The catheter was shortened and secured in situ by means of this very ingenious little arrangement devised by Dr. Bell, the Assistant House Surgeon of the Hospital, and which can be adapted to any part of a catheter, and to an instrument of any size. The urine was carried off by a piece of elastic tubing. Putrid infection, so very apt to ensue here, was avoided by the constant application to the burnt surface of carbolic oil. The catheter was removed for the first time on the third day, and subsequently introduced for an hour daily in order to prevent undue contraction of the urethral meatus. On the twenty-first day (July 23rd) the patient was discharged cured, and has reported himself in good shape on two or three occasions since.

CASE V.—*Removal of Enlarged Gland.*—Thomas Butler, aged 27, was admitted with a gonorrhœal bubo, which had been incised some time previous. I enlarged the original wound, and found a gland of the size of a hen's egg separated from the skin and underlying structures, firm and apparently having no disposition to break down. The man stated that things had been in very much the same condition for two months. I applied first chloride of zinc paste, but finding that method of treatment of little avail, I dissected out the entire gland with the hot knife. After the removal of the slough, the part healed from the bottom with marvellous rapidity, and the man was discharged cured on the twenty-ninth day after the operation.

CASE VI.—*Tracheotomy.*—On the 24th of February last, Dr. Ross and I were summoned to the Hospital to perform tracheotomy in a case of diphtheria under his care. The child was *in extremis*, and the veins of the neck were very turgid. With his concurrence I made the ordinary incision through the

soft parts with the cautery knife, opening the trachea, however, with the scalpel. The operation was absolutely bloodless. The child rallied for some hours, but at length succumbed to blood contamination.

CASE VII.—*Hæmorrhoids*.—Mary Kelly, aged 27, came under treatment July 29, 1878, for several very large hæmorrhoidal tumours. An operation for their removal was performed with Mr. Henry Smith's clamp, the platinum point of the thermo-cautery being substituted for his more cumbrous irons. A large mass of thickened tissue fringing the anus was removed with the hot knife. The patient was allowed to sit up on the eighth day after operation, and was discharged August 14.

CASE VIII.—*Phagedenic Ulceration*.—Philip Gilison, a lad of 19, having a distinct history of chancroid, was admitted January 9 of this year with an enormously swollen condition of the penis and a most offensive discharge. The prepuce, which was so œdematous that the glans could not be exposed, was slit up freely along the dorsum, when a state of things which only phagedenic ulceration can induce, was brought to view. Nearly one-half the glans was already destroyed, and not a little of the body of the penis beyond the corona. As soon as the pressure exerted by the prepuce was withdrawn, the bleeding became furious, and, indeed, he had already, on two notable occasions, lost large quantities of blood. I rapidly removed the sloughs, divided any bridges of tissue that remained, and applied the cautery unsparingly. An uninterrupted convalescence ensued, and the patient was discharged on the 31st day of the same month.

CASE IX.—*Subacute-Synovitis of the Knee-joint*.—(Reported by Mr. McArthur.)—This is a case that came under my care on the 3rd of the present month, and which I think worthy of notice here. From the notes of my clinical clerk I gather that the patient, Edward Foley, 24 years of age, has long been of intemperate habits, but never had any ailment, with the single exception of an attack of gonorrhœa two months ago, which lasted a very few days, and has never shown any

signs of recurrence. The right knee became swollen some ten days before admission, and now measures (I quote from the report) in circumference an inch and a half more than the healthy joint. The patella floats in the fluid, so that on percussion it is heard to click against the condyles beneath. There is very little heat, and no pain elicited excepting when he attempts to walk.

October 5th.—The joint was to-day scored on either side with the thermo-cautery, and the limb was placed at rest in a Macintyre splint. Iodide of potash in ten grain doses thrice daily was also ordered.

7th.—Everything looking improved. Already on measurement there is a reduction in size of $\frac{1}{3}$ of an inch since the cauterization. Poultices are made to replace the lead lotion.

9th.—Knee-joint increased in size $\frac{3}{4}$ of an inch since the operation, on account of the cellular infiltration induced. Some enlargement of the glands in the groin. No pain in the joint.

14th.—The superficial sloughing consequent on the cauterization is almost gone; circumference diminishing rapidly; joint has now almost a normal appearance.

17th.—Perfectly well; will be discharged in a couple of days.

CASE X.—*Extensive Ulceration following Small-pox.*—(Report furnished by Dr. Gardner.)—Mrs. B., aged about 30, at the eighth and a half month pregnancy, was taken with small-pox. The proper rash of the disease which made its appearance at the usual time, was preceded twenty-four hours by an erythematous rash on the abdomen, groins, inner aspect of thighs and arm-pits. This faded gradually, disappearing in a few days. The patient was delivered in about fifty-two hours after the setting in of the initial fever. Six hours after the delivery when I first saw her, the temperature was 104° Fah. The case throughout was marked by persistent high temperature, which however, was easily reduced temporarily, by quinine in antipyretic doses. Diarrhœa occurred more than once during the course of the attack. There was nothing at any time

abnormal in the lochia. At the commencement of the stage of pustulation, bullæ of the size of a shilling, appeared in considerable numbers on both shins, the outer surface of the right and the posterior aspect of the left thigh. These enlarged and burst, but instead of healing, proceeded to ulcerate rapidly by their edges, the whole thickness of the true skin being involved in parts, until they coalesced, forming large painful ulcers. Constitutional symptoms in the shape of high fever and debility became alarming, rendering it necessary to act with decision and promptitude if the patient's life were to be saved. In consultation with my friend, Dr. Roddick, it was decided to apply the actual cautery to the whole of the now extensive ulcerating edge, by means of Paquelin's Thermo-Cautère. The patient being under the influence of ether, this was accordingly done most thoroughly. The length of ulcerating edge thus cauterized could not have been less than three feet. Linseed poultices were then applied, the sloughs separating in due time displayed healthy granulations. The ulcerating process was arrested from the time of application of the cautery. After the separation of the sloughs the sores healed very quickly; this seeming to be much hastened by the little islands of undestroyed skin, which represented the centres of the bullæ. Six weeks after the application of the cautery, (the ulcers had been healed for some time), the patient had nearly regained her ordinary health and strength, but suffered on walking from a feeling of heat and tension in the cicatrices—due doubtless to their contraction.

I have been furnished by Dr. Burland of the General Hospital with brief reports of other fifteen cases in which the cautery has been employed as a counter irritant in sciatica and in spinal and joint affections, especially morbus coxæ, where I invariably use it; and as a cautery in cases of lupus and other suspicious ulceration, and for the removal of vegetations and small growths of all kinds. It is invariably ready at hand to assist, if necessary, in the arrest of hemorrhage during major operations. A few days since I found it eminently serviceable

in arresting the oozing from the stump of a penis amputated in the ordinary way. In operations on the tongue, and for the removal of ovarian and fibroid tumours, it makes a most excellent substitute for the hot iron. In one of the Dispensaries for Women in London I found the surgeon using the probe cautery in preference to the ordinary escharotics, in cases of extensive uterine ulceration, and all polypoid growths were removed with the knife or guillotine. For the alarming hemorrhage of uterine cancer, nothing could be more prompt and effectual than the actual cautery applied in this way.

There are cases however, in which I am not inclined to advocate its employment. I should be disposed, for instance, in cases of malignant disease of the tongue, and especially when the floor of the mouth was involved, to remove the organ either with the knife or chain ecraseur, trusting to the cautery to arrest hæmorrhage only. An inordinate amount of cellular and lymphatic inflammation is almost certain to follow such extensive burning of tissue in this neighborhood. In fact in one case already published by myself—alarming cellulitis followed the removal with the hot knife, of a small epitheliomatous growth from the floor of the mouth. In tracheotomy also when skilled assistance is available, I think it should be employed only as a styptic. In Dr. Ross' case already referred to in which the hot knife was used, I had great difficulty in keeping track of the anatomy of the parts on account of their charred condition, and when reached, the trachea was with difficulty cleaned up and made ready for opening. I would perform tracheotomy with the hot knife, only in the case of a very fat child, where the venous engorgement was intense, or where, in any case, I had no skilled assistant.

TRACHEOTOMY IN LARYNGEAL DIPHTHERIA ;

BY J. W. MACDONALD, M.D., M.R.C.S., EDIN.

The operation of tracheotomy, perhaps more than any other, places in our hands a means of saving lives which would otherwise be most certainly lost. As an instance of the value of this operation, even in the most desperate circumstances, I beg leave to report the following case :—During an epidemic of diphtheria in the beginning of 1877, I attended R——, a little girl æt. 12. I first saw her on Jan. 2, the third day of her illness. There was a considerable amount of false membrane about the tonsils, and evidence of the disease having spread to the larynx. As the danger to the respiration did not seem imminent, I applied liq. ferri-perchloride to the throat, and used insufflations of powdered alum, and prescribed quinine and iron internally. Hot fomentations were ordered to be applied to the throat, and steam inhalations containing permanganate of potass were to be freely employed. For the next four days the symptoms improved.

January 7th.—The laryngeal symptoms are not so favorable. I asked the parents to send for me if they found the patient's breathing to become more obstructed. They were very much opposed to the operation ; and next day, although the child was in a dying state, they did not send me word. Hearing of this from another source, I drove to the house, a distance of four miles, and found her evidently breathing her last. The surfaces of the body was cold, no pulse could be felt at the wrist. She was totally unconscious, and the breathing consisted of gasps, with long intervals between them. With all possible haste I had her placed upon a table and proceeded to perform tracheotomy. By this time the breathing had completely stopped. I was obliged to hurry through the operation, and without any assistance, as everybody had fled in terror from the room. Having inserted the canula, I immediately commenced artificial respiration, and after persevering for some time, had the satisfaction of seeing the breathing restored. She now began to regain consciousness, and by the motion of her lips we guessed

she wanted water, which was given. Her thirst was insatiable. I placed a piece of gutta-percha tissue between the guard of the canula and the skin, and covered the neck with a woolen cloud. About day-break on the following morning a messenger came to me with the intelligence that the child had managed to pull the tube out and was choking. I set off at once, and with very little hope of finding her alive; but the father had, in the meantime, plucked up courage to insert the tube, and on my arrival I found her breathing freely.

12th.—I removed the canula, and found that she could breathe perfectly by the mouth. The wound was brought together by adhesive plaster. She has a bad cough, and expectorates some blood, with large quantities of mucus. Her appetite is good; pulse 90; temperature 99°.

15th.—She has been sitting up all day; eats heartily, and feels well. The wound healed very satisfactorily; by degrees her strength returned, and she has since been quite well.

Antigonish, N.S., Dec. 2, 1878.

Reviews and Notices of Books.

The Organic Constituents of Plants and Vegetable-substances, and their Chemical Analysis.—By DR. G. C. WITTSTEIN, Authorized Translation from the German Original. Enlarged with numerous additions by BARON FERD. VON MUELLER, C.M.G., M. & Ph. D., F.R.S. Melbourne: McCARRON, BIRD & Co., 37 Flinder's Lane West, 1878.

We believe this is the first time a Canadian Reviewer has been called upon to notice a medical publication issued from the press of Australia. That far off continent has long been famed for its gold fields. It may yet be as well known for its literary possessions. The volume before us is certainly evidence that there are mines there which, when worked, will yield abundance of scientific lore. The German Original of Dr. Wittstein is, in itself, a learned production of high order. To give our readers an idea of its scope, we may mention that it is divided into two

parts. The first is spread over three sections, which are assigned to "proximate constituents of plants and vegetable substances as far as hitherto known; their properties; their mode of preparation and quantitative estimation; molecular weight of organic compounds; synopsis of those plants which yield the proximate constituents under the former, and a catalogue of the vegetable pointed out in them with the order systematically arranged." The second part, likewise, comprises three divisions. The first is devoted to the account of "the apparatus required for the phyto-chemical analysis." The second specifies the chemicals that are needed to perform the foregoing examinations. And the third is taken up with explaining the "general systematic course" of the analysis just named. Lastly, there are added "tables of comparison." Great though the mass of information be which is afforded through these various sources,—and from which the extensive research and Chemico-Therapeutical culture of the author are conspicuously apparent—greater still are the merits of the Australian edition. The translator and editor, who has proved himself well fitted for the task in which he engaged, tells us in his preface that he has supplemented "the original work with many additional notes on new and well-authenticated data, which transpired during the last few years, some claiming local originality here."

The present treatise purports to be all facts,—and no theories. It is purely descriptive. At a rough guess we should say it touches upon 800 different subjects, at least, if not many more. This is a formidable array. But, as the book will be chiefly valuable for reference, this comprehensiveness adds greatly to its value. The topics are of necessity not dwelt upon with equal extent. A judicious measure has been observed throughout, and the largeness or scantiness of the account given of each article has been regulated according to its degree of importance or rarity.

To our readers who have not given attention to the modern advances in the branch of science upon which this new work treats, there will be found much to baffle and confound and amaze. The very names of the objects discussed will be stun-

ners, *e. g.*, Gardenin, Jurubehin, Nucit, Ostruthin, Picrorocellin, Thevetósín, &c., &c. But with the novelties, they will also find the more familiar substance, all in their place. and carefully described.

The manner in which the painstaking translator has accomplished his task reflects credit upon his abilities. He has spared neither time nor money. While he has devoted much labour to the enterprise, —the bringing of it out has been at his own expense. But the only reward to which he looks, is—"that local observers in these *Southern* colonies, as well as in other countries, teeming with on almost endless number of yet novel objects for phyto chemic inquiry for additional resources, may be armed with auxiliary means for extending not only in abstract the science of Chemistry, but also the precincts of Therapeutics." And if this be the result, then our expectations will also be made good of what may yet be yielded by the Australian mines of professional lore.

Cyclopædia of the Practice of Medicinc.—Edited by Dr. H. VON ZIEMSEN. Vol. xvii. Grand anomalous of Nutrition and Poisons. By Prof. H. IMMERMANN, Prof. R. BOEHM, Prof. B. NAUNYN, and Prof. H. VON BOECK. Translated by W. BATHURST WOODMAN, M.D., and J. BURNEY YEO, M.D., of London; E. S. WOOD, M.D., of Boston; CHAS. EMERSON, of Concord; PORTER FARLEY, M.D. of Rochester, and A. B. BALL, M. D., and E. WALLER, Ph. D. of New York.—ALBERT H. BUCK, M.D., New York, editor of American edition. 8vo. pp. xiv. 968. New York: WILLIAM WOOD & Co., 27 Great Jones Street, 1878.

The first article from the pen of Immermann forms the completion of the subject on the general anamolies of Nutrition. Hoemophilia, or what he terms the bleeder disease, is the first section of this article, from this we learn that the earliest historical record of [the hoemorrhagic diathesis is found in the writings of an Arabian physician who died at Cordova in the 12th century. This writer had no knowledge of this disease except what he had heard from persons who were said to be affected with this idiosyncracy, nevertheless, his descriptions

are so vivid as to be readily recognized to correspond with the same affection as occasionally seen in the present day. After giving an interesting historical record of this disease the author points to the definition of the disease hæmophilia. He considers it to be a congenital and habitual hæmorrhagic diathesis, never seen except in young persons, at least, the tendency to hæmorrhagia is a congenital defect seen in infancy and childhood, and which, as a rule, continues throughout life. He remarks "it is uncommon for an individual who has been a marked bleeder in infancy, and in whom, therefore, the disposition was presumably congenital, to lose the idiosyncrasy in early youth and to remain thereafter entirely free from hæmorrhagic attacks."

The author then passes on to a description of the disease, its symptomatology, anatomical changes, complications, nature, diagnosis, duration, prognosis and treatment. An allied affection, scurvy, is the next section taken up, and which is discussed in the same systematic manner, after which we have a description of the disease called *Morbus Maculosus Werlhofii*. These form the first article in the volume, and it is apparently full and exhaustive, occupying some 280 pages of reading matter. The rest of this volume is devoted to the subject of poisons. Boehm gives the first paper in which he discusses poisoning by the metalloids, mineral and vegetable acids, alkaline earths and their salts; poisoning by anæsthetics and other carbon compounds, and poisoning by tainted articles of food.

Naunyn writes an article on poisoning by the heavy metals and their salts: in this article the author includes arsenic and phosphorus.

Vegetable poisons are next discussed by von Boeck. In this article all the poisonous plants and their active principles are considered, the article closing with an account of poison fungi. The edible fungi or mushrooms are likewise given, as also the symptoms induced by eating decomposing fungi. This volume is a most important and useful addition to the series in this cyclopedia, and adds materially to the general interest of the work.

On Rest and Pain.—A course of lectures on the influence of mechanical and physiological rest in the treatment of accidents and surgical diseases.—By JOHN HILTON, F.R.S., F.R.C.S., &c., &c. Second edition, 8vo., pp. 299. New York: WILLIAM WOOD & Co., 27 Great Jones Street, 1879.

These lectures are too well known to demand an extended notice at our hands. They were first delivered by Mr. Hilton before the Royal College of Surgeons as early as the year 1860, and still they may be read with advantage and instruction, a lot which does not fall to every work after a lapse of eighteen years. This is a reprint of the second edition of these lectures, which appeared in London some two years ago under the editorial guidance of Mr. Jacobson, aided by the author. It was the intention of Mr. Hilton to have enlarged the work by the addition of material gathered from other surgical observations, but all having the same end in view, namely, that of illustrating by clinical records the advantages to be gained in a practical sense of the recuperative powers of Nature, "aided by the suggestions of a thoughtful surgeon." Throughout these lectures the author emphatically points to the therapeutic value of mechanical and physiological rest in the treatment of surgical disease. It is a work that has been regarded with general favour. Our object now in noticing it is to call attention to the republication of this work as forming the first of the series of Messrs. Wood's Library of Standard Medical Works. We alluded on a former occasion to this scheme, but it may have escaped the observation of our readers, and we conclude this notice with an extract from a circular received from the Messrs. Wood. It is understood that the intention is to publish each year twelve volumes of standard medical works. The publishers look for the support of the profession in this enterprise, and we can only remark that if the series are brought out with the same care and style as this, the first volume which is before us, that our medical friends will have in the course of a few years a handsome library of useful medical works at a nominal price. The circular concludes as follows—

“ Will you kindly have this volume noticed at an *early* day that we may avail ourselves of the influence of your journal in obtaining subscriptions to the series?

“ To meet the views of all classes, we have concluded to take subscriptions:—1st. The \$12.00, payable on delivery of the first volume, in which case the volumes are all delivered *free*, by mail, from New York. 2nd. Payable \$6.00 semi-annually, in January and July, in which case the subscriber pays express charges on the January and on the July volumes, the other volumes being sent *free*, by mail; and 3rd. Payable monthly at \$1.25 per volume; in this case the volumes are each delivered *free*, by express or carrier, C. O. D.”

Cyclopedia of the Practice of Medicine.—Edited by Dr. H. ZIEMSEN. Vol. XIII. *Diseases of the Spinal Cord and Medulla Oblongata*—By PROF. W. H. ERB. Translated by E. G. GEOGHEGAN, M.D., of London; E. W. SCHAUFLEER, M.D., of Kansas City; D. F. LINCOLN, M.D., of Boston; JOHN A. MCCREERY, M.D., of New York; ALBERT H. BUCK, M.D., New York, Editor of American edition. 8vo., pp. XII. 975. WILLIAM WOOD & Co., 27 Great Jones Street, New York, 1878.

This is the fourth volume on diseases of the nervous system and is devoted to affections of the medulla spinalis and spinal cord. In the arrangement the author deems it advisable to give, as an introduction to the history of these diseases, a brief statement of the macroscopic and microscopic anatomy of the cord and its membranes, together with its physiology, and in following this arrangement he remarks that he feels justified in so doing by the fact that a knowledge of these things is essential to the proper understanding of these diseases. The minutiae of subjects of this nature are apt to escape the memory of the busy practitioner and would have to be searched for in text-books not always at hand, furthermore, when found the description is not always given with due regard to a knowledge of or connection with pathology.

Under the heading of general symptomatology we have the several sections of disturbance of sensibility, disturbance of mobility, disturbance of reflex activity, vaso motor disturbance, trophic disturbance, disturbance of urinary and sexual apparatus, disturbance of digestion and defæcation, disturbance of respiration and circulation, disturbance of the pupillary fibres, cerebral nerves and of the brain itself.

Of the causes of disease of the spinal cord there are mentioned sexual excesses, influence of age and sex, disturbance of nutrition, propagation through morbid processes existing in other parts extending to or propagating disease in the spinal column, exposure to cold, excessive exertion or physical influences, poisoning and the local development of infectious diseases, acute disease, and the irritation depending on disease of the other organs.

The diseases of the membranes of the spinal cord forms the subject of the next article, in which we have discussed hyperæmia of the membranes of the cord itself, meningeal hæmorrhage, inflammation of the spinal dura mater, inflammation of the spinal pia mater the acute and chronic form, tumours of the spinal membranes, and as an addendum, the changes met with in the spinal membrane which are without clinical significance.

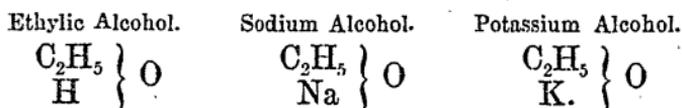
Diseases of the spinal cord itself is the next subject given, hyperæmia and anæmia of the cord, spinal apoplexy, wounds of the cord, slow compression of the cord, concussion of the spine, spinal irritation, Myelitis, Tabes Dorsalis, and various degrees of paralysis. In the last section is considered the diseases and injuries of the medulla oblongata, and tumours of the medulla. The work seems to be abreast of the times; it is full without being tedious, and the descriptions are clear and readable. The translators have performed their task well, and the volume is produced in the same excellent style as those that precede it.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Caustic Alcohols.—On the remedial application of the Ethylates of Sodium and Potassium, or Caustic Alcohol. By BENJAMIN RICHARDSON, M.D., F.R.S.—The great interest displayed at the last meeting of the Medical Society of London on the subject of the ethylates of sodium and potassium, which I introduced into medicine in the year 1870, leads me to think that a brief description of these substances and their medicinal application may be of interest to the wider circle of medical practitioners who are readers of *The Lancet*.

The ethylates first came into my hands for study when I was conducting a series of experimental inquiries on the action of the different alcohols. They are sometimes called alcohols because in them the atom of hydrogen which in alcohol is, with its radical, combined with oxygen, is replaced by an atom of sodium or potassium. Thus, taking ethylic alcohol, which is composed of the radical ethyl (C_2H_5), hydrogen and oxygen, as the type, the sodium or potassium replaces the hydrogen:—



The first object of research was to ascertain what would be the effect of introducing a new element, by substitution, into a substance,—alcohol,—the physiological action of which was understood; and the subjoined description formed part of my report to the British Association for the Advancement of Science in 1870.

Sodium Alcohol, or *Ethylate of Sodium*, is prepared by treating absolute alcohol with pure metallic sodium. So soon as the sodium comes in contact with the alcohol there is escape of hydrogen, and the addition of sodium has to be continued until action ceases. I find it good to increase the temperature gradually as the action declines. At last there is obtained a thick,

nearly white product, which is a saturated solution of sodium alcohol. From the solution the ethylate of sodium crystallises out in beautiful crystals.

When the ethylate is brought into contact with water it is decomposed, the sodium becoming oxidised by the oxygen of the water to form sodium hydrate, and the hydrogen of the water going to reconstitute the ethylic alcohol.

The change of ethylic alcohol into sodium alcohol transforms it from an irritant to a caustic. Laid on dry parts of the body the sodium alcohol is comparatively inert, creating no more change than the redness and tingling caused by common alcohol; but so soon as the part to which the substance is applied gives up a little water, the transformation I have described above occurs; caustic soda is produced in contact with the skin as water is eliminated by the skin, and there proceeds a gradual destruction of tissue, which may be so moderated as hardly to be perceptible, or may be so intensified as to act almost like a cutting instrument.

Potassium Alcohol, or *Potassium Ethylate*, is made in a similar manner as sodium ethylate—viz., by bringing pure potassium into contact with absolute alcohol. The action of the potassium is much more energetic than that of sodium. I prefer to immerse the potassium under the alcohol in a small glass bell, from which there is a tube to allow of the escape of the liberated hydrogen. When saturation is complete, a thick and almost colourless fluid is formed, from which the ethylate may be obtained in a solid crystalline state. Exposed to water, the potassium ethylate is transformed, as is the sodium ethylate, into ethylic alcohol and potassium hydrate. The action of this compound on animal tissues, living and dead, is the same as that of the sodium compound, but is more energetic.

PRACTICAL USES OF SODIUM AND POTASSIUM ALCOHOLS.

I do not as yet see the means of applying readily these two active alcohols for internal administration, but I can predict for them a very extensive application for external purposes. They are most potent caustics. In some cases they may be employed to destroy rapidly such morbid growths as are not favourable.

for excision by the knife. In many cases of cancer they will prove invaluable, and will, I believe, exert a direct local curative influence. Injected into morbid growths, they would so quickly destroy them that the action might have to be conducted while the body was under the influence of an anæsthetic.

In being applied direct to the sensitive unbroken skin, I find that their destructive action is less painful than could be expected. I have made with both compounds a superficial eschar on my arm with no more pain than a slight tingling warmth. What is more, when pain is felt, it may be checked quickly by dropping upon the part a drop of chloroform, which decomposes the alcohol, converting it into chloride salt, and an ether—triethylic—which is inert locally. Again, I find that these alcohols dissolve some of the vegetable alkaloids. Thus opium may be dissolved in them, and a solution of opium in caustic alcohol is made directly by mere addition of the narcotic to the caustic spirit. Practical men will see the advantages of combinations of these alcohols with narcotics. The practice opens the way to one of the greatest needs of medicine—a sure, rapid, and painless caustic.

The caustic alcohols may be used in combination with local anæsthesia from cold. A part rendered quite dead to pain, by freezing with ether spray, could be directly destroyed by the action of caustic alcohol—a practice very important in the treatment of poisoned wounds, such as the wound from the bite of a snake or rabid dog. It is by no means improbable that some cystic tumours may be cured by the simple subcutaneous injection of a little of these fluids after destruction of sensibility by cold.

Potassium and sodium alcohol, added to the volatile hydride of amyl, dissolve in the hydride and produce a caustic solution. When this solution is applied to the skin, the evaporation of the hydride takes place, and a layer of the caustic substance is left behind. This application would prove very useful to the surgeon in many cases of disease.

The action of the ethylates on the blood is extremely rapid and marked. The red corpuscles are brought by it into solution,

and there forms (quickly in some cases) an almost instant crystallisation of blood; the crystals are acicular, and spread out in arborescent filaments. The arborescent appearance is identical with the crystallization of the ethylates themselves, but the smaller radiant crystals are due, I believe, to the crystallization of the crystalloidal matter of the blood-cells. They are singularly like the crystalline forms which have been described, since the time of Dr Richard Mead, as occurring in the blood after infection by the poison of the viper. One other peculiarity in the action of the ethylates on blood is worthy of notice: while they seem to attack and dissolve the red corpuscles vigorously, they act with comparative slowness on the white corpuscles, so that we may see a white corpuscle floating uninjured in a sea of red colouring fluid previous to crystallization, and even adhering to the crystalline points after crystallization.

The ethylates possess also powerful antiseptic properties, so that even nervous matter, which of all animal substance is most prone to decomposition, can be long kept in good preservation in the presence of them.

This was my report in the year 1876 on these ethylates, and since then I have used them often in practice with much success. The ethylate of sodium is the most manageable. It is very easily made, and its caustic property can be changed in different specimens, to suit different cases. The solution I use is one of half saturation, and I keep the solution in a bottle having a glass rod descending from the stopper, the end of the rod being somewhat pointed. With this rod I lift the solution from the bottle and apply it from the point of the rod. At one time I used a glass brush for the purpose, but I found the brush objectionable, the small fibres of glass being disposed to break too easily.

The first idea that occurred to me in respect to the application of the ethylates was founded on their action physically. It seemed to me reasonable to suppose that if the ethylate were applied to a moist external growth there would be produced two changes: a caustic action would be set up, and at the same time the alcohol would cause instant coagulation of the fluids of

the part, so that the destruction of structure would be purely local and concentrated. In addition to this there would be the advantage of the antiseptic action, which is so marked. Three forms of disease were, I thought, amongst the best for its use—cutaneous nævus, lupus, and malignant ulcer.

TREATMENT OF NÆVUS WITH SODIUM ETHYLATE.

In 1870 I treated with the ethylate a case of nævus on the neck of a child two years old. Not more than six applications of the fluid were made when the nævus was entirely removed, and a sound surface left. The nævus in this instance was so small I did not consider the trial of sufficient value; but soon afterwards my friend, Mr. Gay, was good enough to show me a case of nævus of the scalp in a child under his care at the Graat Northern Hospital. The nævus was of the full size of a half-crown, and extremely prominent. It had been treated on various plans—by tying, by nitric acid, and other methods,—but without success. Mr. Gay having consented to my request that the ethylate should be applied in this case, I sent a specimen of the remedy to the hospital for use there. Instead of this the patient was sent to my house that I might apply the caustic myself. I commenced by covering the nævus lightly with the solution. The application gave very little pain, but soon a dark surface showed that the caustic had taken effect. Three days afterwards a firm hard encrustation had formed where the caustic had been applied, which encrustation I did not then remove. A few days later, the hard crust being loose, I gently raised it away to find the nævus greatly reduced in size. The ethylate was again applied to the surface of the nævus, and the same process was continued until the nævus was entirely removed, and a natural surface was left. The case was under my treatment nine weeks and three days. Some time afterwards the child was brought to me so completely well that it was not easy to discover where the nævus had been.

Dr. Brunton's cases, which he so ably reported at the Medical Society, are similar in kind, and his results are equally good. I referred at the meeting to some other cases in which I had

used the ethylate. These I will notice at length on some future occasion. It is better now for me to give one or two practical hints for those who wish to use the ethylates.

PRACTICAL NOTES.

In making the ethylate of sodium, which is the most manageable, it is best not to make much at a time. Put half a fluid ounce of rectified alcohol (sp. gr. 0.975) into a two-ounce test-tube, set the test-tube up in a bath of cold water, and add, in small pieces at a time, some cuttings of pure metallic sodium. A gas, hydrogen, will at once escape. Add the sodium until the gas ceases to escape, then warm the water in the bath to 100° F., and add a little more sodium. When the gas again ceases to escape, stop the putting in of more sodium; or, if crystallization takes place, then stop. Afterwards cool down 50° F., and add half a fluid ounce more of alcohol. This will give a good working solution, which can be made more active by adding sodium, or less active by adding alcohol.

Put the solution in a glass stoppered bottle, and have the bottle always well closed.

Keep the bottle always in a cold place. Once, a bottle of ethylate, left during summer time exposed to the sun in my laboratory, exploded, so that the bottle was broken and the contents spilled.

Always apply the ethylate with a glass rod.

The ethylate solution must not be mixed with other fluids than alcohol. Mixed with chloroform, in quantity, a violent action is set up, and the ethylate is decomposed into chloride of sodium and an ether—triethyllic.

The ethylate is not so manageable for subcutaneous injection as for application to the surface by the glass rod. It specially deserves trial in lupus, in malignant ulcer, and in vascular cutaneous growths and excrescences.

The addition of an alcoholic solution of opium lessens the pain of an application.

The Royal Medical and Chirurgical Society.—The first paper read was that on a case of Thyrotomy for the Removal of a Membrane completely Obliterating the Larynx, by Dr. FELIX SEMON. The patient had attempted to cut his throat, and as the wound healed it was found necessary to perform tracheotomy. The voice gradually became diminished, and laryngoscopically a tough dense membrane was found occluding the larynx between the false vocal cords, with evidences of ankylosis of the left arytenoid cartilage. The operation was undertaken to remove this membrane, and was the third case on record in which thyrotomy had been practised for such a purpose. A modification of Trendlenberg's tampon was employed to plug the trachea. The author urged great caution in the administration of chloroform through the tampon-cannula, the liability to asphyxia being greater than when inhaled in the ordinary way. In the operation itself he had intended to only partially divide the thyroid cartilage, leaving its upper part uninjured, so as to ensure subsequent apposition of the parts, but he was compelled to fully divide it. He then found that there was a second membrane in the larynx, at the level of the original suicidal wound, that visible with the laryngoscope being probably due to the adhesion of the false vocal chords. He urged, therefore, in similar cases, an examination through the tracheotomy wound, to ascertain the presence of other membranes. The lower and primary membrane was being excised with a pair of curved scissors, when the patient began to cough violently. It was thought that the tampon-cannula did not sufficiently occlude the larynx, and that perhaps blood had entered the bronchi. In reinflating the tampon the cough was replaced by an intense asthmatic paroxysm marked by extreme inspiratory dyspnoea. No obstruction was found in the tube, but on partial evacuation of the tampon-bag the dyspnoea ceased, showing, the author held, that an excess even of equal pressure on the inner walls of the trachea sufficed to produce reflex spasm. The sudden cough was in corroboration of Stoerck's statement that the posterior wall of the larynx, and especially the interarytenoid fold,

excite cough when touched, whilst the anterior and lateral walls of the larynx are not so irritable. The wound healed by primary union, but in spite of the daily-repeated and long-continued passage of bougies through the mouth, there was gradual cicatricial stenosis of the larynx, and a month after the operation no air passed through the mouth.—The President complimented Dr. Semon upon the interest of his paper, on account of its novelty, and the candour and lucidity with which it was written. Dr. Andrew suggested that the asthmatical attack which occurred during the operation, characterized especially by marked inspiratory dyspnoea, was due to narrowing of the trachea just below the point where it was unduly distended by the bag of the tampon. Dr. Semon felt sure there was no narrowing of the trachea, for he was able to explore it thoroughly with a goose-quill, and although the dyspnoea was both expiratory and inspiratory, it was chiefly the latter; but he believed it produced by reflex action from pressure on the nerves supplying the mucous membrane, and thought this borne out by some experiments which had been made. Mr. M. Baker suggested that the elastic bag of the tampon may have been pressed down and caused obstruction. Narrowing sufficient to produce dyspnoea would not be proved by a quill. Mr. Holmes had had but small experience in thyrotomy, but he had seen no need to employ sutures, and criticised the procedure suggested by Dr. Semon, of not completing the division of the cartilage, as diminishing the area for manipulation, and preventing the complete exposure of the ventricular bands. Dr. Semon explained that one object he had in view was to preserve the anterior commissure of the vocal cords, and thus prevent that total loss of voice which Bruns had shown to follow after complete thyrotomy.—*The Lancet*.

Treatment of Neuralgia by hypodermic Injections of Ergot.—Marino recommends the injection of from 0.15 to 0.25 gr. dissolved in distilled water. This may be repeated once or twice, though, perhaps not more than six times, and acts well in certain forms of neuralgic pains, especially in the douloureux. It appears to act less favorably in sciatica.—(*Imparziale*, No. 8, 1878.)

Treatment of Diarrhœa by Oxide of Zinc.—DR. JACQUIER has followed in the service of Dr. Bonamy at Nantes, the good effects of the employment of oxide of zinc in diarrhœa. The formula which he has employed is the following: Oxide of zinc, 54 grains; bichromate of soda, $7\frac{1}{2}$ grains; in four packets, one to be taken every six hours. In all the cases which he observed by Puygautier, the cure was even more rapid, since in only one case were three doses of the medicine required. The results are considered to have been more satisfactory, inasmuch as in several cases the malady had endured from one to many months, and other methods of treatment had not produced any improvement. Thus he concludes that, although by no means to be held as exclusive treatment, the employment of oxide of zinc deserves to be more generally known as useful in diarrhœa.—*British Med. Journal*, Sept. 28 1878.

A huge Vesical Calculus.—DR. BROWN, of Barnsbury, brought to the first meeting of the Islington Medical Society, on the 22nd, ultimo, a human bladder containing three stones, weighing in all one pound and a quarter, less twenty grains; the next half a pound, less forty grains. the third forty grains. The bladder is thickened and its mucous coat is ulcerated. There had been indications of stone for twenty-five years, and the patient was sounded at the time by two provincial surgeons. Shortly before his death he was again sounded by a London surgeon, who wished to operate; but the patient would not consent, and soon died. The sufferings of the patient were most severe, amounting often to torture, for which he was in the habit of taking a mixture of gin and beer. His death was preceded by a dry tongue, pain in the region of the right kidney. twitchings, tympanites, and drowsiness, which passed into coma, The urine during this period contained large quantities of blood and pus. The stones are smooth and of phosphatic composition. The surgeon who wished to operate is probably to be congratulated on the resistance of the patient. The specimen will shortly be given to the Royal College of Surgeons.—*The Lancet*.

Treatment of Diphtheria.—M. Kien, in the late epidemic of at Strasburg, has found that Schaller's method of treating diphtheria with perchloride of iron—twenty drops in twenty drops of water, in a teaspoonful or two of coffee every two hours—was exceedingly effective. In some cases, in which the medicine did not act sufficiently rapidly, M. Kien has given in addition syrup of eucalyptus, according to the plan of M. Goldschmidt. If the patients refused to take the perchloride of iron, a lotion was employed, such as was proposed by M. Mandl, of Paris, for application in chronic granular pharyngitis. The lotion was applied by means of a brush, as a wash for the sore places, two or three times a day. It was composed of carbolic acid, 0.10; pure iodine, potassium iodide, .oa : 0.20; glycerine, 10.00. Independently of this, he gives salicylate of soda, 1-100, if symptoms of fever present themselves; the drug acts in the same way as sulphate of quinine, whilst it is more easy to administer in a liquid form.—*Gazette Medicale de Strasbourg*, Nov. 1876.—*The Practitioner*.

Pilocarpin in Children's Diseases.—

Professor Demme of Berne has recently given an extended trial to pilocarpin in various dropsical affections of children. The cases treated were thirty-three in number, and the remedy was administered subcutaneously. Eighteen were cases of desquamative nephritis with dropsy after scarlet fever; in three the same affections after diphtheria. In the remaining twelve cases the dropsy was due to the vulvular affections of the heart, rheumatism, acute, long affections, &c. The age of the patients ranged from nine months to twelve years; the dose varied from five milligrammes to two centigrammes. In some of the cases from two to four injections of a centigramme each were made in the twenty-four hours. Only in two cases were there any unpleasant symptoms, such as vomiting, hiccough, paleness of face, prostration, convulsions. In these cases the peculiar effects of the remedy were not observed. Professor Demme regards pilocarpin as an excellent diaphoretic and sialagogue. The former effect is more marked in older children, the latter in younger patients. Three to seven minutes usually suffice for the effect

of the drug to be produced ; this goes on increasing for fifteen minutes, and remains at its height for a half an hour or more, and then gradually subsides. There is slight diminution of temperature. The pulse is increased in volume and in frequency by from twenty to sixty beats. As a result of the full effect of the pilocarpin there is a loss of weight varying from 120 to 675 grammes. Diuresis is only occasionally observed. There was watery diarrhoea in two cases. Professor Demme thus summarizes his experience of the remedy : 1. Pilocarpin is an efficacious diaphoretic and sialogogue in the treatment of certain diseases of children. 2. In appropriate doses it is well borne by the youngest patients. 3. Unpleasant symptoms are of very rare occurrence, and can probably be altogether prevented by administering small doses of brandy before the injection. 4. The cases for which pilocarpin is especially suitable are the parenchymatous inflammations of the kidney with dropsy following scarlatina and diphtheria ; in the majority of these cases the flow of urine is decidedly increased, while the quantity of blood and albumen in the urine is diminished rather than augmented. 5. It is uncertain whether pilocarpin has any direct influence upon the action of the heart.—(*Medical Examiner*, July 18, 1878.)—*The Practitioner*.

Large Doses of Belladonna in Intestinal Obstruction.—Dr. Norman Kerr puts on record five cases of intestinal obstruction which he has successfully treated by the administration of belladonna in two grain doses every hour. The total amount of belladonna given ranged from five grains the lowest, through nine and fourteen grains, the highest. The accessory treatment consisted in fomentations, warm enemata, gruel and beef-tea per rectum ; ice, iced-milk and soda water by the mouth. Attacks of obstruction occurring afterwards were also treated successfully by the administration of belladonna. In no case was alcohol prescribed, but in one it was taken as two ounces of port wine before the belladonna treatment was begun. In the after treatment pulvis glycyrrhizæ composita has been found the most effectual remedy, as a preventative of obstruction.—*British Medical Record*.

Hypodermic Injection of Dialyzed Iron in Chlorosis.—Professor Da Costa reports vast improvement in the condition of a young woman, aged twenty-one, suffering from chlorosis after the injection of dialyzed iron hypodermically for a fortnight. Hitherto iron has not been used in subcutaneous injections, as it is liable to cause irritation and abscesses, even with the tartrate, which is one of the mildest forms. The solution of dialysed iron was found to be free from these drawbacks, even used undiluted. The punctures caused by the syringe show no sign of inflammatory action. In no case was there that costiveness or disordered digestion which are but too often the after-effects of the use of iron. Daily injections of fifteen minims of pure dialysed iron were at first given, and this was gradually increased to twenty, twenty-five, and thirty minims per day. Under this treatment the colour gradually came back to the patient's lips, gums and tongue; her appetite was good her bowels regular, and her headache gone. She was considered practically cured.—(*Philadelphia Medical Times.*)
The Practitioner.

Of the Nature of Mumps.—M. Fehr, after observing several cases of mumps with the greatest exactness, decides that it is right to consider the disease as infectious, and that, as was already noticed by previous observers, it stands in a definite relation to acute exanthema, particularly to scarlet fever. The occasional swelling occurs in the neighbourhood of the glands themselves, whilst the surrounding tissues only become infiltrated at a later period. It is, to say the least of it, inaccurate to describe the disease as pariparitis, as is usually done; that it is not parotitis is shown by the fact that in very many cases of mumps it is the sub-maxillary which is either affected alone or is swollen at first. The infection is not due to propagation of inflammation of the mouth caused by secretions from the glands. The observation that in most epidemics of mumps there is a period of incubation lasting several days with the well-known febrile symptoms before the appearance of the local symptoms, as well as the spread of disease not only to sur-

rounding persons, but also to the foetus argue for a specific, alteration in the blood. The swelling of mumps is not a catarrhal inflammation, but a morbid swelling of the glands depending upon varying hyperæta, which only occasions collateral hyperæmia and infiltration of the neighbouring tissues, when there happens to be a stoppage of blood in the glands.—*Von Langenbeck's Archiv.*, xx. p. 600. *Rundschau*, June 1878.—*The Practitioner*.

Chloral Medicated with Camphor.—(The Tropical application of Chloral Medicated with Camphor.) The mixture of chloral and camphor is transformed by heat into a thick oily transparent liquid, resulting from the solution of the camphor in the chloral hydrate, which thus loses its proportion of water. This topical application does not act like chloral by revulsion, for it does not produce the slightest hyperæmia of the skin. Its action appears therefore to be due to its absorption. Dr. Sune who has made out these facts, has seen several cases of pain in the side and slight attacks of neuralgia cured by this new medicine. (*Independencia Medica.*—*Practitioner*.)

Iodide of Potassium in Small Doses in Persistent Vomiting.—Dr. Formica Corsi states that iodide of potassium given in small doses cures obstinate vomiting which has resisted the ordinary treatment. In a case of a pregnant woman suffering from typhoid fever, Dr. Corsi administered two centigrammes of iodide of potassium dissolved in 100 grammes of water in a teaspoon every hour and a half. The vomiting, which had previously resisted all known anti-emetic, ceased the following day. Dr. Giné confirms the anti-emetic properties of iodide of potassium; and he uses the medicine in doses of one to five centigrammes daily for the cure of constipation, as he finds that it acts as a laxative. (*Independencia Medica.*)—*The Practitioner*.

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1878.

COLONIAL DEGREES.

In the October number of this periodical we published an article on the question of the recognition of Colonial Degrees, and in doing so our desire was to endeavour to enlighten our English Brethren as to the nature and character of our institutions. It appears that the tone of this article has given umbrage to the Editor of *The Medical Times and Gazette*. It is lamentable to see the absurd notions that are apparently entertained and expressed occasionally in the British Medical press concerning us Canadians, and the article in our journal above referred to, was one of a series that have from time to time appeared in our periodical, for the the express purpose of imparting some information to our fellow-countrymen on the other side of the Atlantic as to our social and medico-political status. But the article in question had a wider signification as it applied in a degree to our own local enactments. We are desirous of seeing that proper understanding, which should exist amongst us Canadians, but which, unhappily, does not exist, of harmonizing all our licensing bodies under one head, so that a man who is registered in one section of the Dominion can claim, on the strength of that qualification, registration in any other section. Far be it from us to hold out any threat, as is hinted in *The Medical Times and Gazette*; such a line of conduct would not be likely to attain the end desired. Perhaps our contemporary is not aware that Canada is a country sparsely populated, but containing an area of about as large as the whole

of Europe. That this country has a future and a bright one before it, few who are accustomed to reason on these subjects will deny. The Canadian faculty are in no way anxious that Jack's master should believe Jack to be as good a man as himself. They are perfectly willing that *the master* should remain in his self-imposed exclusiveness, be self-satisfied and convinced that he is far above other men, especially his man Jack. Still, Jack can go on in the old way, and if his master becomes too exacting he can simply cease to serve him or to recognise him in any way as his superior or even his equal. The world is all before us, and the Canadian Medical Faculty has yet to learn that recognition in any shape is essential to its being. If the tone of our article was "not altogether satisfactory," how can we characterize the tone of the reply in the leader of *The Medical Times and Gazette* of the 16th November, 1878.

The article in the CANADA MEDICAL AND SURGICAL JOURNAL was based on an editorial item which appeared in *The London Lancet* of the 26th of October, in reply to a letter of complaint from a British graduate, who, we must confess, was treated with apparent injustice,—an injustice which, by-the-way, was rectified by order of the President of the College of Physicians and Surgeons of Ontario, as soon as the circumstances became known to that official. We are not so sure that the editor of *The Lancet* is correct in his opinion that persons registered under the imperial law are entitled to be registered in the Colonies, on payment of the necessary fee, at least, so far as Canada is concerned. According to the British North American Imperial Act, the various Provinces of this Dominion are granted the power to legislate for themselves. There is no saving clause protecting the rights of registered British Medical Practitioners. We have always held, and we do so still, that British practitioners should be entitled to registration on what their papers show. In Canada we are general practitioners, and a man to register with us must hold the double qualification. A pure surgeon would have to satisfy the board of examiners, by examination on the subjects in which his papers are deficient of his fitness to enter the profession as a general practitioner. So, again, a

pure physician would have to satisfy the board by examination that he was proficient in surgery before he could obtain his license to practice. Our friends on the other side do not seem to be aware of this fact.

It would seem that the *master* insists on recognition from his man *Jack*, not on account of what he is in verity, but because of what he would desire to be.

The Medical Times and Gazette assumes that the grievance of non-recognition is, to a very great extent, a sensational one. In this we do not altogether agree. Was it a sensational grievance when the agents in England of the Canadian line of Steamships received a notice from the Board of Trade in London, that after the 1st January, 1877, the steamers of that line would not be allowed to clear at the Custom House in Great Britain unless the Surgeon on board was provided with a Diploma from some of the colleges in England, Ireland or Scotland. This action of the Board of Trade was resisted by the Messrs. Allan.

Sir Hugh Allan, the head of that firm, who resides in Montreal, in a letter which he addressed to Dr. G. W. Campbell, the Dean of the Medical Faculty of McGill University, and which we published at the time, remarks, under date, January 19, 1877:—

“I am totally ignorant of the reason why this regulation is proposed, or of any good to be attained by it.

“We have for the last twenty years carried Canadian Surgeons on board our steamers, as well as English ones, and the result of our experience is, that the Canadian Surgeons are quite equal both in professional acquirements, and gentlemanly bearing, to those we receive from the Colleges in England.

“I therefore am not disposed to submit to this requirement, inasmuch as I think it is a great injustice to the institutions of this country, as well as to the young men who study therein, and in point of fact it is a slight upon the Dominion itself.

“I have written to the Government urging them to take action in this matter without delay, and I write this letter to you with the view that you should bring it before the authorities of the University of McGill College, or in any other way that you think most likely to attain the object I have in view, and that is a full and perfect recognition of our own medical men as being equal to any others.”

We have reason to know that correspondence on this subject passed between the governments of the two countries and the action of the Board of Trade was for the time rescinded, but the Canadian surgeons are not in a legal position. Their qualifications are not recognised as giving them any status, further than that if a man is registered in his own colony under the local enactments of his own country he is permitted to serve on British ships. This is a state of things which is unsatisfactory, more especially as the profession of Great Britain is seeking for further legislation as regards this very subject of registration. The last clause of the article in the *Medical Times and Gazette* can apply equally in our favor as in theirs, for how are we to know that the standard of their ordinary pass-examination is equivalent to our own. We take it for granted that it is and we admit men hailing from their schools to registration without examination, but we do so in a spirit of broad liberality and with a full hope that an equally liberal spirit will guide the councils of those in authority in Great Britain; not, however, be it distinctly understood, because we are compelled to do so. We possess our own legislating bodies in this country who can, if it seems advisable, exclude every person from participating in our Registration Act unless the person so applying comes with a curriculum of study equivalent to our own and passes an examination before our local boards.

Dr. Clark, senior physician to the London Hospital, who accompanied H. R. H. Princess Louise, and his Excellency the Marquis of Lorne on their coming to this country, was entertained by the profession of this city at dinner at the Windsor Hotel. Some thirty gentlemen sat down. The Dean of the Medical Faculty, McGill University, took the chair, having on his right the guest of the evening.

Dr. J. P. Rottot, President of the College of Physicians and Surgeons, Province of Quebec, occupied the vice chair. A most enjoyable evening was passed. The usual loyal and other toasts were given and heartily responded to.