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Original Communications.

Annual Address, before the Tenth Annual Meeting of the Canada Medical Association, September 12th, 1877, by the President, Wm. H. Hingston, M.D., L.R.C.S.E.

GENTLEMEN,—In taking possession of this chair, the first duty (as well as the highest pleasure) is to express to you my profound gratitude for the honour you have conferred upon me in calling me to occupy it. Permit me to assure you that I am fully sensible of that honour, and that I realize, at the same time, the important duties your partiality has imposed; and, believe me, if I fail to discharge them to your, or to my own satisfaction, it will not be for want of good will on my part. My predecessors in this chair,—chosen for their fitness, at different times, from various parts of the Dominion,—have assigned to me the continuation of a labour begun ten years ago in the ancient city of Quebec, for the advancement of that benevolent profession with which we are so closely united or related. Although much has already been accomplished, we must admit that *all* the advantages hoped for from its founders have not yet been realized. Sufficient has been effected, however, to satisfy them and us, that a greater degree of energy on the part of the members of this Association, pervading, adjusting, sustaining, and agitating the whole, would have been attended with a greater measure of success. But in a profession such as is ours, ever varying, ever undergoing mutation of some kind; endeavouring to eliminate what can no longer be productive of good; and to appropriate what it wishes to retain; and with difficulties arising from geographical and social conditions, the Association has, indeed, effected some good since its formation.

It has been the custom, for some time past, at the opening addresses before societies of this nature in Europe, and chiefly in Great Britain, to take up some department of the healing art, or some master or explorer who has passed away. Thus Paget advocates, at length, before the Surgical Society, the claims of Hunter as a physiologist; Sieveking vindicates anew the claims of Harvey to be considered the discoverer of the circulation of the blood. But at the annual meetings of this Association, where time is not afforded for abstract questions of historic interest, we are confined to those of practical moment—those politico-medical questions, chiefly, which concern us most.

OBJECTS.

It is sometimes insinuated that this Association has no objects sufficient for its existence; and that the good effected is altogether disproportionate to the labour, expense and time of coming together. But those are the insinuations of the ill-informed, who fail to perceive that, apart

altogether from the scientific importance of such gatherings, the social advantages of union and converse, social sympathy and fellowship with each other, outweigh, immeasurably, the inconveniences. The Medical Association of our American cousins has had its history, but now it numbers so many members that it seriously contemplates making some change whereby that number may be reduced. Although almost too large and unwieldy for practical purposes, were it to pass away now, after only 30 years of existence, it must be admitted to have effected an amount of good that could not have been obtained in any other way. It has brought the medical profession of the United States into one body, and has encouraged State and smaller local societies, thereby improving the tone in these. So also with this Association, which can boast an existence of only one-third that period. Legislation has endeavoured to impose geographical boundaries; this Association defies all efforts at fixing limits or bounds, as of a territory. Legislation has imposed a term and limit to our functions, making the fit and capable practitioner of one province of our country disqualified for the duties of his calling in another; this Association rubs out and obliterates, for the time being at least, those unsightly enclosures which, although in a measure necessary, and created in self-defense, yet mar the beauty and unity of the whole.

DIVISION OF LABOUR.

It is a matter of gratification that the work this session will, for the first time, require to be divided into sections. Hitherto every thing has been done in general assembly, but the number of papers this session is so many that two sections, at least, require to be created; and I shall ask you at the proper time to suspend the By-Laws so that sections may be formed, one for medicine, and another for surgery. The other branches of the healing art must needs find place in one or other section.

The general sessions will be held in the morning, each day, at which the reports of the various committees will be read. The papers on special subjects will be read and discussed at the afternoon sessions of the sections to which they may be referred.

As the work of the Association will be divided into sections, I am precluded the opportunity of dealing with what will be brought forward by the chairmen of sections at the proper time. I shall therefore touch upon questions of general interest, which cannot come under the prescribed heads; yet which concern the well-being of this Association; of the learned profession which it represents; and, more than all, of the community in which it is fostered.

MEDICAL LEGISLATION.

The acts relating to the profession of medicine and surgery, in existence for many years

past, in this Province, have been changed. If amendment means improvement, correction, change for the better, then have I difficulty in unreservedly qualifying the hasty legislation in the ancient capital, last session, where three bills went in, to satisfy the fancies of three orders of mind, and one came out, satisfying fully, I believe, no order of mind.

The Province of Ontario has a central examining board, and the medical press and profession of that Province have pronounced in its favour. The Province of Quebec has, as yet, no central board, yet nothing short of it will satisfy the wishes of those who look only to the well-being of the profession, and of the community.

Medical education, as well as the preparation for it, belongs to each Province. It is useless, therefore, to speak of medical legislation for the whole Dominion; or of having a medical act to apply to, and to govern, the whole Dominion. But it should be an easy matter to introduce measures simultaneously, in the several Local Legislatures, each for its own Province, yet all alike, so that the practitioner in one part of the Dominion could be a practitioner in all; but central examining boards, one for each Province, and an uniform standard for the whole, must be elements in that system.

To compel persons, having a license to practise in one part of the Dominion, to obtain another to practise in another part of the same Dominion, seems to be an anomaly, but an anomaly which can be remedied only by a parity of medical legislation in the several Provinces.

How much more liberal is the present action in Great Britain, where the English College of Physicians has passed a by-law, by which even foreign practitioners may be legalized in England. Any candidate for the College license "who shall have obtained a degree in medicine or surgery at a British, Colonial, or Foreign University, recognized by the College, after a course of study, and an examination satisfactory to the College, shall be exempt from re-examination on such subjects as shall in each case be considered as necessary."

In this way, foreign and colonial practitioners may join the English College of Physicians, and so "find entrance to the Register"—the Medical Council of Great Britain still retaining the duty of accepting the conditions for admission to the Register of foreign graduates. It appears to me to be the duty, as well as the interest of this Association, to endeavour to effect such changes as would lead to a like generous action.

In our recent act, some most serious defects occur which, it is to be hoped, may soon be remedied. As the law now stands, it is competent for one or two persons in the large cities, not over-scrupulous as to means, so to gather up and manipulate proxies as to change the composition of the Board at an election. One active

man in Quebec or Montreal may control matters at any time for the whole Province, and practitioners residing in the town, or in country districts, may, without their knowledge or consent, be made instruments for the purpose. In Ontario, it is different. There, each medical school has *one* in the Council of the College of Physicians and Surgeons, not *two* as here; and those outside the teaching bodies must not only be residents of the several territorial divisions for which they are elected, but "one shall be so elected from each of the territorial divisions by the registered practitioners of Medicine *resident in such division.*" And the divisions are those "as established previous to the Confederation of the British American Provinces for election of members of the Legislative Council of the late Province of Canada." With us each member of the College of Physicians and Surgeons, the moment he enters the profession has 40 votes for election purposes! He may use one in favour of the representative of his district or division, and still have 39 votes remaining for those outside of it; and may either vote, or transfer them to the most clamorous. It may be readily understood how such a defect in a law might lead to unseemly cabals, if not to confusion and injustice. It is to be hoped the anomaly that exists in our election procedure in this Province,—an anomaly for which I can find no parallel elsewhere,—will be removed.

QUALIFICATIONS FOR PASSENGER SERVICE.

Through the medical press of this country, attention has been drawn to the refusal to recognize Canadian qualifications for emigrant and passenger service on board British ships; and the matter has been taken up by the Transatlantic Medical Press and the Medical Council of Great Britain. The Board of Trade has rescinded the order, and Canadian Surgeons continue to exercise the privileges they have enjoyed, since emigrants first came to our shores. But the law still exists, and it is competent for the British authorities to return, at any time, to their former action. The qualifications of holders of Canadian diplomas have not yet been recognized, but their continued employment is acquiesced in. Many have asked that the subject be settled definitely. How can we ask for it till we obtain for the holders of Canadian diplomas recognition all over our own Dominion? Can we ask Great Britain to concede to us what we do not concede to each other? I say this, not to interfere with the courteous and most generous action on the part of the British authorities, but to stimulate you to renewed efforts to make such satisfactory arrangements as will enable holders of diplomas from one part of the Dominion to practise in all. The profession of medicine is a liberal one; not mean, narrow, or selfish. Being liberal, although

somewhat foreign to the subject, I cannot but allude to the uncourteousness of a member of the profession in Ontario towards a surgeon of distinction in Detroit who visited Ontario to perform an operation at the request of a highly respectable physician of the place. I am sure you will willingly make me the interpreter of your views in assuring Dr. Jenks, and, through him, the members of the profession in the adjoining Union, of our honest offered courtesy, and of our continued desire for reciprocation in matters which even governments cannot, and should not, attempt to control. Science requires, and humanity demands, in matters of this kind, the most unfettered complaisance and civility.

EDUCATION.

I am naturally drawn from a consideration of the question: What should constitute the qualifications of a medical student before entering upon the *practice* of his profession, to what should be his qualifications on entering our medical schools? Should he have secured knowledge which promised nothing beyond knowledge itself; or, should he, as would have done a Cato, have acquired knowledge with reference only to what it could produce? Should he possess a liberal education; or that sort of knowledge which we now term useful? Should he possess refinement and enlargement of mind; or only sufficient knowledge of Latin to translate Gregory or the Pharmacopœia? Should he possess liberal knowledge, or, as it has been happily termed, a gentleman's knowledge—which, to possess it, is something, though it produce nothing;—or that utilitarian knowledge which is of use only when acted upon? Should it be the education which is philosophical, which rises to, and is enriched with, ideas; or servile and mechanical, and which expends itself upon what is external and visible? Should it be the education which gives a high tone of thought, a high standard of judgment; or that education which merely makes of the memory a passive receptacle of scraps and fragments of knowledge, to be served out confusedly and without method. The education I vindicate should give cultivation to the intellect; it should give a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in the conduct of life. It should open the mind, correct it and refine it, and enable it to "know and to digest, master, rule, and use its knowledge, and give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address." With the intellect, thus tutored and instructed, the student might enter upon the study of that most difficult profession of which we are members; engage in a calling the due discharge of which requires all the attributes of the mind, and the highest culture of the

intellect; and pursue with advantage a particular course of study which might issue in some definite, and, perhaps, remunerative work. It may be gathered from this that I share not with those arch levellers who advocate a low Utilitarianism; but rather with those who think the student should be formed "not by a parsimonious admeasurement of studies to some definite future object; but by taking a wide and liberal compass, and thinking a great deal on many subjects, with no better end in view, perhaps, than because the exercise is one which makes him a more rational and intelligent being." But this is not what has been obtained for us recently in a hurriedly prepared law relating to our profession in an important province of this Dominion, where our colleges and seminaries of learning have been degraded from their position. The graduate in arts, the student who has completed his eight or nine years curriculum at any of our colleges, should; by that fact alone, be qualified to enter upon the study of medicine. But no! our universities may grant degrees in arts, but the colleges and affiliate medical schools over-ride them!! and subject the candidate to a new ordeal, from which he should be exempt!!

Yet the possessor of a *liberal* education; compared with one *crammed* for an examination—the nature and extent of which he may have learned from those who had gone in before him—is, to use a familiar comparison, as one standing on the timber to be divided, seeing the line to be followed, and guiding the instrument intelligently, compared with the one beneath, who mechanically aids the work, but, blinded by the dust and particles he has detached above his head, is uninformed as to the progress or nature of the work being done. And so it is with labour of an intellectual kind. We must be above our knowledge, not under it. If above it, we may generalize, reduce to method, "have a grasp of principles and shape our acquisitions by them." If below our knowledge, we are confused and oppressed; and the greater the number of facts the more those facts confuse and oppress.* This is markedly the case in medicine. An ill-informed physician is easily startled at every change in the condition of a patient; and rushes in to check, control and interfere, when, with a better trained mind, he would be led to observe, and to note, that, if need be, he might, with greater advantage, guide and direct. The uneducated man, unaccustomed

* In an able editorial in the *Philadelphia Medical Times* for May, 1877, it is asserted that the standard of graduation in the United States, south of New England, has been steadily lowered, and although "new matter has been added to the curricula," and "the bait of clinical instruction has been alluringly spread, the effect has been evil, because the attempt has been simply to pour into vessels already overfull." Would it not have been wiser the truth to say the vessels had not been prepared of a capacity to contain what they received, but could not retain?

to group and to combine, gives prominence to what may be unimportant; and fails to recognize what is of value. It is with medicine as with politics. We have two classes of politicians in this country; the one, versed in the science and art of government, and in the ethics which concern human actions, and capable of an abstract view of the contentions of parties; the other, a mere transcript or copy of the last editorial in the journal of his party,—unequal to methodically arranging or digesting facts, or to comprehending the laws and principles which govern party and party issues. To which class of mind—apart altogether from party—would you most willingly entrust the guidance of the concerns of state? I anticipate your answer. To which, in like manner, should be entrusted, not party issues, nor the interests of a party, but what is of far greater moment,—the health and life of the people,—but to intellects formed and disciplined for the perception of those phenomena, the causes of which, even to the best trained minds, are far from obvious or indubitable?

I have ventured to say this much, even at the risk of fatiguing you, in favour of a liberal education, for the time is come when physicians can no longer hope to retain their position in society without that perfection of the intellect which is the result of education; which, as Newman says, "is the clear, calm, accurate vision and comprehension of all things, as far as the finite mind can embrace them, each in its place, and with its own characteristics upon it." In the days of Samuel Johnson the physician was admitted to be the most cultivated and learned in any society. In how many countries in the world could that be said with truth to-day? Could it in Canada? There are some countries where the physician is still among the best educated gentlemen, and his social status is regulated accordingly. Notably is this the case in Ireland. Dr. Stokes, with whom I conversed on this subject in 1867, and to whom I remarked the high tone; the gentlemanly bearing; the friendly relation one to another; the easy, well-bred familiarity which characterized the members of the profession in Dublin, said: "It is easily explained; nearly all our graduates in medicine are graduates in Arts. Of the last 98 all had degrees in Arts." There are some other countries where the same condition obtains.

If the cultivation of the intellect was necessary when men were content to observe, and to base practice on observation, how much more necessary is it now, when the most acute logical minds are sorely puzzled between what are claimed to be scientific truths, and what are bold reckless assumptions.

SCIENTIFIC ASSUMPTION.

This is unquestionably the age of bold, reck-

less, I had almost said impudent, assumption in matters of science. While it is generally conceded that our "ideas of the intrinsic elements that constitute beings in the physical as well as in the moral order are very limited and imperfect," we now boldly assume the mutual dependence of things upon each other when we could logically establish nothing more than co-existence or succession; as if co-existence or succession necessarily implies connection or relation.* Look at the writings of a Spencer and a Huxley for illustrations of what I state. They, with Tyndall, have occupied a larger share of our thoughts than have many hundred more scientific writers who preceded and accompanied them. Yet what but bold assumption and word painting have we gleaned from the first of these; and a plausible but illogical mode of drawing conclusions.

SYNTHESIS IN MEDICINE.

While medical writers during the past and early part of the present centuries analysed, divided and separated diseases, and gave prominence to qualities and features by which one disease differs from, and is distinguished from another, (thereby clogging and oppressing the memory with varieties of dissimilitude,) there is a tendency now to synthetize, arrange and group in a more general way, diseases which may present some features of variance, but many of similarity and resemblance. Markedly is this the case in Cutaneous Medicine. Just one century ago, Shenck, of Vienna, completed his arrangement of cutaneous disorders. Willan wrote some twenty years later; and Hebra, also of Vienna, a half century still later. Compare the earlier with the later Vienna school, and we shall see that diseases are now classified on a sounder pathological and anatomical basis; that the skin is identified with "the rest of the organism;" and that the study of its diseases is clothed with a more scientific and philosophical character. And what are the advan-

* We have had those assumptions on a large scale in Tyndall's assertion recently, that the blue of the sky, as seen from the highest elevations, and above possibility of contamination with earth, is caused by vast numbers of foreign bodies floating in the atmosphere, so small as to be undistinguishable by a microscope magnifying 1500 diameters. Dollinger produced a magnifying power ten times that asked for, and assumed to be sufficient, but the minute germs still declined to exhibit themselves even to this powerful observer.

We have had the same thing on a small scale in our midst. We had in Canada predictions about the weather *many months in advance*, which were received by the thinking public with a smile of incredulity; but by the curious with avidity,—*Julce est errorari*. Had these been confined to foretelling the occurrence of the seasons, promising us much cold in winter, much heat in summer, many showers in spring time, and frost and falling leaves in autumn, we should have applauded so wise a reticence. But more definite prognostications were required by the public, and were given; still the heat came and went—and the "*froid vidait son suc*," with a wantonness and nonchalance regardless of the feelings and interest of Mr. Vennor.

tages resulting therefrom? Cutaneous affections are regarded less as local affections, than as local manifestations of a general disturbance. Our own Erasmus Wilson simplifies cutaneous disorders still more by placing them in four groups—an *assimilative* group; a *nutritive* group; a *neurotic* group; and a *specific*, of which syphilis is the only example. "Nearly every new disease of the skin," says he, "might be comprised, therapeutically, under these four heads." What a stride is here made in a most interesting branch of medicine! and yet only in conformity with the experience of every thoughtful and observant practitioner. The tyro in medicine has, or thinks he has, a half dozen remedies for every disease; but as experience is gained, he learns, and with advantage to his patients, to make a fewer number of remedies to suit a much greater number of disorders. And thus it is in surgery; and thus it will be in Gynæcology, when the process of resolving the more hidden operations of nature shall have had its limits somewhat defined.

I have always thought, and the belief has strengthened with observation, that the work of grouping diseases for therapeutic purposes is yet to be done. Sir Henry Holland, many years ago, partially guided the current of medical thought in that direction. But the tendency to analysis, which the study of minute anatomy, and the use of the microscope, so greatly favoured, diverted that current, till the observations of a Neumann, of an Auspitz, or of an Erasmus Wilson, showed, in one department of medicine, at least, what might, with great advantage, be accomplished in all. Perhaps some member of this Association may yet achieve in other departments of the healing art what has been so well effected in this.

STATE MEDICINE.

Without taking from the important useful advances in medicine; the splendid triumphs of the surgeon; the wonderful precision of diagnosis of the modern gynæcologist;—there is a department as important as any of these; yet one so recent, that it is only within the past few years it has found a distinct place in any of the medical schools of the Dominion. I allude to State Medicine. Its object is, as tersely stated by J. Marion Sims, "to do everything necessary to protect the health of communities and states. It investigates the air we breathe, the water we drink, the food we eat, the clothes we wear, the fuel we burn, the houses we live in, the soil we cultivate, the habits and industries of life, the origin and nature of endemics and epidemics, the methods of their transmission, and the means of their prevention, and of their suppression wherever found *** it endeavours to discover the causes, and to prevent the originating of disease; to prevent its progress, to circumvent it, to extinguish it,

whether it be zymotic, contagious or specific. In short, it is the function of State Medicine to protect the public health, which is the life of the nation."

Gentlemen,—Is there, can there be, a more important work than "to protect the public health, which is the life of the nation?" And to whom does this work of right belong but to those who, already familiar with Physiological and Pathological Sciences can best teach and instruct their application "to the maintenance of the health and life of communities, by the means of agencies which are in common and constant use."

Speaking, as I do to-day, to, and in behalf of the Medical Profession, in this our beautiful and beloved Canada, I should say there is no work more important; no work more philanthropic; no work more benevolent than that of awakening in our population, and through it in Governments and Municipal bodies, a knowledge of, and an interest in, all matters relating to public health. A knowledge of the laws of health should not be confined to the profession. They were openly taught to the people by a Moses, and were not strained through time, but came down to our own day monuments of wisdom.

What is the duty and office of the physician? To deal with abnormal functions, and to change, if possible, or to remove unhealthy structures in the human body; to restore to that thinking faculty in man its pristine powers, that it may receive impressions, understand them, and be affected by, or be mindful of them; to restore health to the sick and wounded in spirit? Such, in a word, is the office of one who professes, or practises, the healing art; or who adopts manual operations for the cure of diseases that are external. But something more is required.

Is it not true that the profession as a body, deals chiefly, if not solely, with that entity when its being or existence is threatened; or when the harmony of its complex movements is disturbed? What a huge share of attention is directed to, and how closely we watch the progress in, that science which seems to deal chiefly with the symptoms of diseases, that we may recognize them truly; and with the effects of diseases, that we may limit or modify, if not hinder those effects. The medical press comes to us from every part of the civilized globe, and almost daily from around us, teeming with new methods of curing disease. New remedies, or new ways of employing old remedies, follow each other, phantasmagoria like, in such rapid succession, as to baffle the efforts of the most diligent experimentalist to examine and to select for future use, without seeming arbitrariness. And yet how often are the best efforts of the physician, even with his ever new and powerful armamentaria, powerless to check the spread of diseases, through the carelessness or

ignorance of those who surround the sick bed! If, for instance, diseases consist, as claimed by Tyndall, of definite particles, sometimes floating in gas, or in the air, or in the liquid we drink; and that like organic seeds in the soil the particles multiply themselves indefinitely in suitable media—the great probability being that their disease-producing qualities are living things—not gaseous or liquid,—but solid, the treatment of disease will resolve itself, sooner or later, into a kind of germicide within and without the body—within, in the fluids and secretions of the body—without, in the noxious elements that surround it.

The conviction is steadily gaining ground that a Board of Health should be established for the Dominion; Provincial boards for each Province; and local boards for every municipality. But where shall we commence? With the Legislature? No! Legislators are but the mouthpieces of the people; and if party politics consume their time, they but act up to the standard by which the measure and quality of their work are to be valued. Give them, however, another, and a higher standard by which to estimate and measure the line of duty, and make them to understand that the health and happiness of a people, as Earl Beaconsfield observes, are the foundation on which depend much of the happiness and power in the State, and we will find them exercising all the ingenuity of the age, and all the knowledge of our most advanced Scientists and Sanitarians in securing the lives, and in protecting the health of the people. But can we reproach them for doing nothing, while we do so little towards disseminating correct information, and inculcating proper habits among ourselves? Let us do our share outside of what is the truly professional—for none so qualified as we to do—and salutary laws will be framed, and the people will observe them. It is said that our favoured Sister City the Queen of the West, and the Capital of Ontario, has made "several very vigorous and very unavailing attempts to form a Sanitary Association, with a view of aiding the authorities in improving the health of the city." This city has been more fortunate, and has done more—but it required to do more.

LEGISLATION ON HEALTH MATTERS

has been, so far, unformed, unfinished, and immature. When I entered officially, a couple of years ago, upon the labour of endeavouring to improve the sanitary condition of the city in which we are now met, I found no law that could be put into force to carry out the most necessary sanitary measures; and, in my earlier enthusiasm, struggled, with but partial success, to obtain some amelioration in sanitary legislation. More matured experience, however, apprised me that legislation is useless where the people

are totally uninformed on the most elementary health matters. Where, for instance, the wisdom of endeavouring to enforce sewer ventilation, where the chief magistrate seriously proposed "trapping the sewers?" Where the advantage of endeavouring to accomplish what the whole scientific world approves of—general vaccination,—and, in times of epidemic, re-vaccination, when professors in medical schools will, in public squares and market places, harangue the uninformed against the practice? No. While our laws, as I have already said, are unformed, unfinished and immature, we, gentlemen, you, and I, and every one of us, have to do more than we have hitherto done to get those, whom sanitary laws affect, to have some sort of intelligent appreciation of the principles they involve. Every man can see, says Miss Lankerton, that if he persists in walking over a precipice he will, in all probability, be killed, and there is no need to enforce a law to prevent his doing so; but he does not see as clearly that if he and his family live and sleep in an atmosphere filled with sewer gas; or if they drink the unfiltered water of some dirty pool or river, destruction is as certain and inevitable, though by a slower process. Is it not clearly, then, the duty of those, whose eyes are open to the latter dangers, to make them evident, if possible, to those whose ignorance is as a "mist before their vision?" And, gentlemen, upon whom does that duty devolve, if not upon those who are qualified to instruct, where instruction is so much needed? I shall not go to other countries, or to other cities outside of our Dominion to ask a question. There are in Canada nearly 6000 physicians. Were that body of educated men to do its duty, each member of it in the space or circuit through which he walks, would the profound ignorance we meet with in sanitary matters be so general? I think not; and if accountability rests upon any one, upon us must fall a portion of that huge responsibility which doubtless rests somewhere for that large death rate which obtains in some of our larger cities. The physician who is content to prescribe only to those who are sick, but imperfectly discharges his duty to the state. There is a duty he owes to human society as such; to the state to which he belongs; to the sphere in which he moves (and the physician moves in every sphere); to the individuals towards whom he is variously related; and that duty is but ill-performed where ignorance the most crass, and prejudices the most benighted, are permitted to pervade a community.

INSANITY.

Papers will be read before you to-morrow on this most important subject, showing, I have no doubt, to what a labyrinth of difficulties the physician is sometimes introduced, when dealing, or attempting to deal, with those questions.

of insanity, or supposed insanity, upon the elucidation of which, the hope and prospects of whole families sometimes depend. Whether, as held by certain Neurologists, hallucinations are accompanied, if not caused by, derangements of the optic thalamus or parts adjoining; or, according to others, that the seat of trouble is in the corpora quadrigemina; or, according to a third, that there is pigmentation of the retina and pigmentation of the spleen or of the cortical nerve cells, or in certain cases pigmentation of the whole brain; or whether, according to a fourth, better informed methinks, these appearances are mere coincidences, met with in sane and insane alike, thus severing the connexion endeavoured to be set up between insanity and pigmentation any where; or, whether anomalies in the vascular supply alone awaken old impressions, which are often erroneous, because misplaced as to time and circumstance; or whether, as beautifully put by Spitzka, complex registrations imply a higher consciousness, and can only have their seat in the higher centres, namely in the cortex cerebri, and that it is through the fasciculus of the corona radiata that registrations of thoughts or impressions, sane or insane, are "projected on the cortical convoluted screen," a screen, as Spitzka calls it, because it acts like one in receiving impressions, and differs from it only in that its impressions are never blotted out, except by destructive lesions or by death." While these questions concerning the site and causes of insanity are undergoing inquiry, and no where with more diligence than in some parts of America, let us hope with solution, the questions why should the brain alienate its functions; in what manner is lunacy brought about; whence and from what source is reason dethroned; and where is the seat of the usurper, although pregnant with scientific interest, have a more practical aspect, and one which concerns the public not less, and justice and humanity more.

The responsibility or irresponsibility of accused persons is a not uncommon question to be decided in our Courts of Justice, where the plea of unsoundness of mind is often put forward to influence and guide, or to hinder and traverse, the due course of law. There are many phases of insanity indistinguishable to the unprofessional observer; and as, on the one hand, the legal definition of insanity was settled, established, and freed, as was supposed, from ambiguity, by Legists who have long since passed away; on the other, every year adds a something to our etiology and pathology of that state, which under the term *insanity*, includes so many varieties of unsoundness of mind. The breach between Medicine and Law on this question has always existed, and must necessarily grow wider and wider, until another Erskine shall have arisen, who, availing himself

of the researches of recent neurologists, will adopt a definition more nearly correct than any of those which I take at random from standard works: "Un délire chronique, sans fièvre, avec excitation des forces vitales;" or as otherwise characterized: "Un délire général avec excitation, érasibilité, penchant à la fureur." "Un délire général, ou du moins sans idée dominante, sans passions fortement prononcée et permanente, mais avec disposition à la fureur."

Such, gentlemen, or something much after this fashion, is the definition, in the gross, of a malady which jurists wish us to accept in courts of law, and upon it to decide whether a human being shall be hung or set free; deprived of the use and control of his property; or whether third parties shall receive or be deprived of what would otherwise be theirs.

It is very difficult indeed, says Lord Hale, to define the *invisible* line that divides perfect and partial insanity, but it must be duly weighed and considered both by the Judge and Jury, lest, on the one side, there be a kind of inhumanity towards the defects of human nature, or on the other side too great an indulgence given to great crimes. That line of distinction, referred to by Lord Hale, says Stephens on Crimes, has never yet been fully traced; yet medical men are often tempted to be bullied and browbeaten into drawing a defining line, (which to jurists, even, is yet "invisible,") of a discretion or discernment between good and evil.

I have already said that Law and Medicine are conflicting on this question; but to a Pinel, an Esquirol, a Riemschneider or a Barlow it belongs, and not to a Hale or an Erskine, to say who is, and who is not, insane. As sick men define their sensations most correctly, why not the insane, with Shakespeare, say what is insanity?

How pregnant sometimes his replies are! A happiness that often madness hits on, which reason and sanity could not so prosperously be delivered of.

They could do it as well as Jurists, whose training in Law does not qualify them more for questions of this nature.

The difficulties I have here merely glanced at were never more clearly or more forcibly set forth than by a distinguished member of this Society at its last annual meeting in Toronto. Dr. Workman, with a perfect causticity which he knows how to use, sketched some of those disputations between Law and Medicine, and the latter did not suffer in his hands. I should not allude to this question now, when so much remains to be said, were it not to point out the inconvenience, if not injustice, that is sometimes done by experts in courts of justice being outnumbered by medical practitioners who have given but little attention to the subject of insanity, and to whom the obscurer forms are quite unknown. If the most diligent and painstaking physician finds a lifetime too short to

familiarize himself with the office, functions and derangements of all the internal organs of the economy, and gladly sees medicine having its explorers in certain parts of certain structures; how necessary is it, in cases where reason is not totally dethroned, that the duty of advancing an opinion which is to sway a jury, and bear consequences the most important, should be confided to those who are accustomed to detect those early and less marked varieties, which might escape the notice of less experienced observers. I am forced into those reflections by a consciousness that justice has sometimes miscarried in Canada by the manner in which numbers have outweighed qualification. In French, and other continental courts, for many years past, questions of insanity have been referred to experts named by government, who form a neutral council, and neither one side nor the other can furnish *ex parte* evidence of a technical character in rebuttal. At the meeting in February last of the Medico-Legal Society, a step in the direction indicated was made by James Appleton Morgan, who moved, "That the Society appoint a committee to inquire into and ascertain concerning the system of medical and surgical experts appointed by law and attached to courts of justice, understood to be provided by the laws of France."

In this Dominion we do not look, nor do we hope at once, for that complete system which obtains in Europe; but we may, by a tacit acquiescence, favour a plan or arrangement which would be productive of much good. I should say much more on this subject, but as two papers will be read before you on matters germane to this question, I shall leave to Dr. Workman and Dr. Hornibrook the completion of the task they have assumed.

UNION WITH THE AMERICAN MEDICAL ASSOCIATION.

You may recollect that at the Niagara meeting of this Association, in 1875, it was decided that, "in consideration of the true interests of Medical Science, it is desirable that a medical conference should take place between the American and Canada Medical Associations at some central point to be determined upon; and that the American Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of medical and surgical questions on a common basis."

At the Louisville meeting of the American Medical Association, later in the same year, the subject was taken up, and it was resolved "that a committee of thirteen be appointed, whose duty it shall be to confer with a like committee of the Canada Medical Association at such time and place as may be agreed upon by the joint committee of the Associations." That joint committee met in Philadelphia in September,

1876, when it was unanimously resolved "that a union of the two Associations into one is desirable, and that the president of each be requested to bring the subject before his own Association, and present his own views upon the matter, in order that the question may be fully discussed, and action taken thereon by the members at their next annual meeting." The "next annual meeting" of the American Medical Association was held in Chicago, in June of this year, and the distinguished President, Dr. Bowditch, of Boston, fulfilled in an admirable manner, the duty imposed upon him, by summarizing, in his address, the arguments for and against the proposed union.

Among the latter, speaking for the objectors, were: the difficulty already experienced of making so unwieldy a body as the American Medical Association, a working body, would be increased; the two languages used throughout this country; the difficulty of arranging the expenses of the united body; the widely distant places of meeting, &c., seemed against the proposed union.

The arguments in favour of the union were thus stated by Dr. Bowditch, and I give them in his own words as the best evidence of the kind feelings of the Association, and of the courtliness and urbanity of its President towards Canada and its young Association:

"*First.*—We should associate ourselves with a body of physicians all of whom have been educated under English influences, and many of whom have pursued their studies in England, and have received diplomas from the schools of that country. We all know the high standard of qualifications required by the British schools.

"*Second.*—Why may we not look upon such a connection as quite similar to that which has frequently taken place, and which will occur again hereafter, when a new state in this Union is formed?

"In that case, if a State Medical Society be organized, it has to send delegates to this Association. The only difference in the two cases, would be that Canada embraces a very much larger constituency than any of our new States would have.

"*Third.*—I am inclined to look with favour upon the proposed union from the standpoint of civilization itself. There can be no doubt, as already stated, that this American Association has been a great means for promoting good-will between the different sections of the United States. The proposed union with Canada will tend much towards the reuniting of two of the freest nations on the globe, and certainly civilization can get only good from such co operation. All means that we can bring to unite mankind I hail with delight.

"*Fourth.*—I will allude to what will give me, and I doubt not many more, great pleasure. I

wish the united professions to meet in the old cities of Montreal and Quebec, and pass up and down the noble St. Lawrence, magnificent as it is in the length, depth and breadth of its waters, and still more fascinating from its early associations with European civilization. I would like that we should all stand on the scarred battlements of Quebec, and I think perhaps we, of this country, might learn a divine lesson of magnanimity after war, if we could together look at the obelisk erected by the graceful action of the British government to the joint memories of Wolfe and Montcalm, two brave soldiers, antagonists in battle, but in death, joint heirs in the memories of mankind."

Dr. Bowditch, in conclusion, suggested that the whole subject be referred to the judicial council of the Association then in session. It was so referred; and the council soon after reported *adversely* to the proposed amalgamation.

That decision, gentlemen, relieves me from the duty imposed upon me of presenting my own views upon the matter at this, the first "next annual meeting" of the Canada Medical Association. Yet I may be permitted to observe, in view of the vast but sparsely populated territory, and of the very diversified elements that compose our less widely extended but more furnished neighbour, union for scientific purposes was a lone possible; for all matters pertaining to medical ethics or education could not possibly have been discussed and settled by two peoples so near each other in many things, so far asunder in others. But I rejoice that the discussion of the subject has furnished occasion for the most friendly intercourse, where geographical boundaries were overleaped, and where forms of government did not obtrude but to give higher zest and relish to our intercourse. I beg, now, on your behalf, to reciprocate the sentiments of the President of the American Association, that each should send, annually, delegates to the other Association. Each will surpass the other in being neighbourly; and the delegates admitted to the other Association will be the representatives, from across the border, of mutual good will.

That has already been done this year, and I welcome most heartily our distinguished friends from the United States, and greet them in your name.

And now a word of explanation which might have come earlier. The Canada Medical Association did not ask for amalgamation; or to absorb, or be absorbed by, the American Medical Association; but merely for "a conference at some central point" so as to become "more intimately acquainted," and to discuss "Medical and Surgical questions on a common basis."

If our representatives at Philadelphia asked for more, they were not so commissioned; and

in resolving that "a union of the two Associations into one, is desirable," they expressed their own views,—advanced and liberal, no doubt,—but spoke not for the Canada Medical Association, which, at Niagara in 1875, asked merely for a "medical conference," for the "discussion of medical and surgical questions on a common basis" without either Association losing, or wishing to lose, its identity.

But union of the two Associations is of the near future, and in a way little dreamed of, perhaps, by the superficial observer. History tells us that absorption usually goes on from the north. The statistics recently furnished show a birth-rate for some parts of Canada which has never been equalled. In the city of Montreal, last year, the birth-rate was 49 per 1000, and the French Canadian element alone gave 64 per 1000, the largest birth-rate that has ever been reached. Union, amalgamation, absorption, are of the near and certain future, therefore, if our large birth-rate, and the alarmingly small birth-rate in some of the States of the adjoining Union, continue as at present.

FÆTICIDE.

Here, gentlemen, my somewhat lengthy address should end, but yielding to the solicitations of some of my medical friends, and impelled at the same time by a sense of duty, I venture to touch upon a matter of extreme delicacy, but of vital moment. It is asserted by an American writer, (Dr. Allen,) that in *certain* classes of society in some parts of the adjoining Union, for a long time past the marriage relation would seem to be regarded, not as a Divine institution ordained by God for the preservation of the species, but as a matter of convenience and self-interest. To use his own words: "the standard of living is too high; the artificial wants are too many; confinement to household duties is irksome; children are a burden; the responsibilities of maternity must be avoided or limited. Hence in married life a series of 'nameless acts' take place, which need not be described." In those few grave, weighty, momentous sentences, gentlemen, are contained a picture of some of the chief causes of that alarming decline of birth-rate, and with it, and as a consequence of it, a gradual and pernicious change in the female physical organization. This, in thoughtful minds, has created alarm lest the *induced* organization become permanent in type. I know not how to enter upon the subject without running some risk of offending reserved and modest sensibilities. The crime I have faintly alluded to is but the logical outcome of those theories of genesis and of population which have been so enticingly placed before us by some very eminent scientists in latter years. There was a time when the birth-rate, in the United States, was as large as in Europe, or in

any part of the world. In round figures the States doubled their number, from births alone, every twenty-five years. How is it now? Vital statistics are as yet too incomplete to base any accurate calculation for all the States of the Union, but those of Massachusetts and Rhode Island are most trustworthy, and afford information that is appalling.

The registration reports for Rhode Island, which I have just received from Dr. Snow, than whom no one is more competent show an immense falling off in the birth-rate in that state, and leave but little room for conjecture as to the cause. Those of Massachusetts are equally significant; and were they not furnished as State Documents with all the weight of authority, I should not dare to allude to them.*

I fully admit the statement of Dr. Edward Jarvis that: "Massachusetts is one of the most favoured states in the world for the intelligence, at least of its native population, and for their thrift and wisdom in management." In the fifteen years preceding 1870 of the children born in the state only 13.91 per cent. died in their first year—the smallest infantile mortality, excepting Norway, in the whole world. And when it is added that this mortality "includes the record of the foreigners, whose infant mortality was in a larger ratio, as well as that of the native families whose infant mortality was at a lower rate than this average," it may be seen how devoted, how intelligent is the care of the New England mother of her infant.

Once born, the New England child has a better chance of living than has the child of any other country or state; but Storer and other American

writers have pointed out the ante-natal dangers to which the fetus is exposed. And we are left no room to conjecture one at least of the causes.

Dr. Gould, of Boston, speaking of the births registered in Massachusetts 1859 to 1863, says: We have to record a continued deficiency in the number of births to be expected from the known population. 1865 was a year of war, and the diminished birth rate may be satisfactorily explained—the birth rate was only 4,097 in excess of death rate. But even then it was noticed by Dr. Geo. Derby that the births had diminished in all but three counties, while the deaths had diminished in every county except two. The population at that time being 1,267,059, there was one living birth to every 41.89 persons, and even then it was observed "that the births are most numerous in the counties containing crowded towns and a large foreign population." Dr. Derby, as if in anticipation, adds: It should not be inferred that the ratio of excess of births among the foreigners . . . is likely to lead finally to an extinction of the American element. But the most striking statement is that of Oliver Warner, Secretary of the Commonwealth: The native population of Massachusetts in 1860 was 970,752, the foreign population in the same year was 280,114. In that year the natives produced 16,672, the foreign 16,138. Dr. Derby in commenting says: The superior fecundity of the Celtic race . . . over the Anglo-American race is, we think, abundantly proved.

In 1865 the native population was 1,000,761, the foreign 266,270. They produced in the following year, the former 16,555 children, the latter 17,530—thus showing a productivity of the latter over the former four times as great.

In 1867 the birth rate was 27.6 per thousand. Compared with the preceding year, the American births had diminished by 318, the foreign had increased by 922.

In 1868 the birth rate was 28.6 per thousand, an increase over former years, and it was then observed that the strictly American births had diminished 2.21 per cent.; the strictly foreign had increased .84 of one per cent.

In 1869 the birth rate was 25.5 per thousand. It had decreased by 52, while the marriages had increased by 970. It has now arrived that the excess of birth rate over death rate is but two-thirds of one per cent!

It is again observed that the American births had diminished during the preceding year, while the foreign had increased. The foreign births now exceed the native by 2,129, notwithstanding the relative smallness of the population.

In 1870, Dr. George Derby, Secretary of the State Board of Health, and Professor of Hygiene in Harvard University, reports the birth rate for Massachusetts as 26.2 per thousand, and adds: "The proportion of foreign births has remained quite constant since 1864; the purely American births have steadily diminished their ratio, and the births from mixed parentage have as steadily advanced." He continues: "Surely, and not very slowly, a mixed stock of Irish, Germans and Canadians is taking the place of the purely English stock which has possessed Massachusetts for more than two centuries. Here are facts for the statesman, the educator, and the moralist." In 1871, the same high authority states: "The superior fecundity of the foreign element among us is a fact fully recognized, and one which is confirmed in a most suggestive way from year to year by the registration returns. This year there was an increase of American births by 234; of foreign by 781.

In 1872, the births had increased by 3,444, but the deaths by 7,076, and the excess of birth rate over death rate was but .563 of one per cent. Again is noticed a progressive diminution in the purely native births, and a corresponding increase in those from a mixed parentage. The excess of birth is now entirely with the foreign element. In one year the native births have increased by 1,125, the foreign by 1,992.

The report for 1873-74 I have not at hand, but that for 1875, just published, (1877), is more than confirmatory, and with it I close.

Dr. Derby has passed away, and Dr. Draper prepares under direction of the Secretary of the Commonwealth that portion of the thirty-fourth Annual Registration Report from which I glean that the birth rate is 26.63 for every thousand of the population. Still a falling off—28.3 having been the average for the preceding three years, and 27.4 the average annual rate during the twenty-five years,

* The population of Rhode Island last year was 258,239, of these, classed by *nativity*, the *foreign* born were 71,630, and the native 186,609. I continue Dr. Snow's figures: the report of births for 1875 gives 6,508, divided as follows:—American, 2,727; foreign, 2,906; mixed 875. The birth-rate for 20 years, says Dr. Allan, has steadily decreased among the Americans, but increased with the foreign, so that in 1875 the foreign had 58 per cent. of the births in the state. Dr. Snow adds:—The native American population of Rhode Island, by parentage, has increased 12.89 per cent in ten years, while the foreign population, by parentage, has increased 80.11 per cent. in the same time. In 10 years at the same rate the native population of Rhode Island would be 152,087 and the foreign 222,466.

In two years (1874-5) 8,221 married women in Providence, born in the United States, and of an age to bear children, had 2,532 children; while 5,919 married women of the same ages, born in foreign countries, had 2,912 children in the same time; that is, says Dr. Nathan Allan, the foreign married women, 2,302 less in number than the American married women, had 320 children more. If the American married women had had, in the years 1874-75, the same percentage of children as the foreign born women, there would have been 4,044 children of American parentage, instead of 2,532, a gain of 1,512 children. If the comparison is made between the American and Irish alone, by parentage, the former class would have had 4,249 instead of 2,532, the actual number, which would show a gain of 67 per cent in two years. I have selected Rhode Island because the system of Registration is singularly correct; and I have taken the *ipissima verba* of the reports. The statistics of many other states are equally appalling. Those of Massachusetts especially so.

1851 to 1875, a period which comprised the Southern war, when the birth rate was low from other causes than those I have alluded to. "The fact remains," says Dr. Draper, "that our birth rate in Massachusetts is lower than we would like."

The birth rate among the foreign born in 1875 was 55.51 per 1,000, while the birth rate among the native born was 16.46 per 1,000 in the same year.

It may be consoling to say that the question of survival is of great moment. And here the advantage, as I have said, is entirely with the native American element.

In looking at these figures, is there not reason to fear the fulfilment of Dr. Knox's prediction, that were the North American continent not fed by a constant influx of European blood, it would again revert to the Red man as its sole possessor. But no! other causes than climatal are at work, for the sun shines on the willingly prolific, and the wilfully barren, alike; both are heated by the same summers and chilled by the same winters.

What I may have to say on this subject must not be considered as applied to any class of persons, but to individuals, here and there, in a class. A very small percentage of officious meddlesome females would disturb the birth rate of a large community. (At the moment of writing I can recall to mind the recent case of a well-dressed person, with somewhat of cultivation and refinement, who came from the adjoining Union, with shattered health and with heart bowed down, who admitted to me, unreservedly, having procured abortion, in her own person, fourteen times! She had so well learned the art from the fiend who had aided her at her first gestation that she required no assistance in the disposal of the subsequent thirteen.)

When persons have learned to regard man, in embryo, as a mere aggregation or union of fortuitous atoms, a plastic germ, a kind of colloid or protoplasm, which the chemical and mechanical laws of attraction and repulsion, selection and rejection, change and wave-like motion, may ultimately develop into a thinking being, but little heed will be given to the integrity of that immature creature suspended in the female womb. Broadcast over this land are sold pamphlets, the titles of which are alone attractive, instructing the female in measures for preventing conception, or for favouring abortion at an early period; and all in accordance with the views of certain classes of materialists and pseudo-philosophers. That the lesson is too well learned is evident from the experience of every physician who has written deprecatingly on the subject.

If the organization that now belongs to us had been progressively developed, the crime of fœticide would not be of that heinous character which it would be, were that organization transmitted to us, without mutation of any kind, from our first parents. If man derives his existence by a process of evolution from a simple cell way up through the tribes of zoophytes, lizards and monkeys, *cui malo*, then, now and

again, to hook an embryotic mass from any part of that long living chain? The Bathybius or beetle; the cod fish or chicken; the mollusk or monkey is but a link, and man is no more; and it is of small moment which portion of that link receives the attention of the prudentialist.*

Such are the views adduced by those who consider that there is a period, anterior to which man is a mere protoplasm, having no rights superior to those possessed by it. And this revolting idea, which, when entertained, disturbs every system of moral and religious belief, is clutched at by those who might hesitate to interfere with that highest, noblest work in embryo, were man created perfect by his Creator, but who, in the theory of evolution, have an excuse for what is claimed to be, not a wrong or an evil *per se*, but, at most, an unintentional detriment to the State.

If what Herbert Spencer says be true, that of all antagonisms of belief, the oldest, the widest, the most profound and the most important is that between religion and science, he is at fault here. There is none, there can be no antagonism between physiological and pathological science and true religion in the subject I am now considering. What is the moral and ethical aspect of the question? What is its social bearing? What are its bearings towards religion,—not that religion of a particular system of faith, but that of acknowledgment to God and our obedience to Him and to His laws? What is its legal aspect?

MORALS.

In ancient Greece, where public opinion seemed to accord a license to one sex without showing any corresponding indulgence to the other, where, as Zenophon says, woman was like the queen bee, dwelling continually at home and superintending the work of the household, marriage was regarded in a civic light, as a means of producing citizens. At that time the beauty of form of the offspring was the strongest desire of the wife. The intense æsthetic enthusiasm of the period led the Greek wife to pray, before all other prayers, as Lecky says, for the number and beauty of her children. While in the ancient Roman family the authority of its head was absolute, marriage, and all that resulted therefrom, were protected by law and severe public opinion. For upwards of five hundred years, according to Valerius Maximus, the marriage tie was regarded as indissoluble, and according to Cornelius Nepos, the mother of the family was placed at the head of the table, and was even more honoured in her *maternal* character than in that of wife. The Roman

* I do not use the term by which the prowler for nascent human prey, who would limit and control man's entity, is familiarly known, as it is not yet found in our dictionaries, and I shall coin no word for the purpose.

matron was a name of honour, and Modestus interprets truly the feelings of the Roman people in defining the union of the sexes in marriage as a life-long fellowship of all divine and human rights; rights of the husband to generate and transmit; rights of the wife to conceive and bring forth; and rights of the fruit to be sheltered from ante-natal danger or injury.

At a later period when, after the Punic wars, Eastern luxury and Eastern voluptuousness overspread the Roman territory, there was a rebound into vice again; but while slaves took the place of wives, and undisguised, unblushing obscenity so flaunted at midday as to call for a law to prevent nameless crimes, even then the pregnant woman, whether wife or slave, was treated tenderly, and with the greatest consideration, for having consulted the perpetual endurance of the race, while contributing to a brief enjoyment.

When, later, female virtue suffered from the great wave of corruption that overflowed the land of the Cæsars, leaving but here and there examples of simplicity, gracefulness and chaste heroism, yet never, even in its worst times, was a nameless crime, now so common, even known to the people of that period.

At no time either during that profligate epoch, could be found anything so unblushingly wicked as the literature which finds its way so near to, and into, our Canadian homes, and which causes some alarm lest curiosity might prompt, and virtue might suffer from, a perusal.

I have been speaking of Pagan times: what shall I say of the early Christian, when a life of asceticism was considered the most perfect, and when marriage was tolerated "because it produced offspring," and was ordained by God for that purpose.

I had the curiosity to consult the *Senchus Mor*, comprising the ancient Laws of Ireland, to see what rules, if any, regulated the relation of the sexes, among the people of that prolific land. But while every conceivable form of crime,—many of them now unknown,—received attention; while all the relations of men to one another and to animals, are copiously treated; while for every conceivable forbidden act are provided compensation, exemption, fines, forfeiture, honour price, restitution; for man in every rank; for woman in every state; from the King on his throne to the cat mousing in the garret, no mention is made, no punishment is provided for that crime spoken of in Genesis xxxviii, 9th and 10th. It seems to have been unknown, and I may add, is still unknown among that people. But lest the designs of Providence should be thwarted through prudential reasons, such as now obtain in certain states of society, neglecting marital duty is dealt with as a crime, and classed for the purpose of punishment with mutilating the person, stripping the slave, &c.

The woman with child was treated then as

now with the greatest tenderness. No neighbouring woman, with bodkin; no village blacksmith was there to rid her of her burden; no demon defiling the name of Doctor to step in, and, with shielded stiletto to unhinge the work of nature. The word of a woman in childbirth was taken before all other evidence; and if unintentional violence had been used; or disgraceful violence as it was termed ("in turthach is tar") which brought on premature labour, and not in natural course, injuring her person, or killing her child, her oath or statement when in labour, or the oath of a witness, before whom the woman in labour made the statement, was taken, and punishment followed, for the *Senchus Mor*, as dispensed by the Brehons, would not allow that a woman in labour could speak anything but the truth.

The social consequences of this evil are beyond measurement or conjecture. Adopting the views of Malthus when the converse obtains, when the law or principle by which population increases is violated, the evil must not be viewed as progressing arithmetically, but geometrically. In Canada the French population has doubled itself since its foundation every twenty years. What factors were the three thousand who landed here 210 years ago, in the 1,350,000 Canadians of French origin who now people both sides of the St. Lawrence and its many tributaries, the Ottawa, St. Maurice, and Richelieu, and extend into the North West, and Eastern Townships, besides, sending half a million to the adjoining Union! What numerous existences were compressed and included in those few lives of our early settlers.*

The question in its religious aspect is easily understood. The most welcome promise made by God was that mentioned in Deut. viii. 14: "There shall not be male or female barren among you." Property, titles, honours could not bring so much delight to a people who thought barrenness, in wedlock, a reproach. All Christian nations are instructed to believe, that matrimony has for its principal end the propaga-

*It was always the aim and effort of French Canada to encourage early marriages, and to develop native population. In the middle of the 17th century, young girls were selected in France for their piety and virtue, and sent to Canada, where they were soon sought in marriage. A dower of twenty lives was given to each one, and families of ten children, resulting from the union, were presented with 1,200 francs, and 1,600 francs to families of twelve. In 1660 there were 2,500 persons born in the Colony; yet in eleven years, 700 children were born. Even now, taking the whole Province of Quebec, we find an average of a fraction over seven persons under each roof, or more than 6.23 persons in every family. Among the births the preponderance of those of the male sex is remarkable, a percentage of 51.13 to 48.87 female. As the deaths occur among male and female children alike, the preponderance of the former is steadily increasing, and indicates in a marked manner a difference with what obtains in Europe where the male population is as 49.61 males to 50.39 females. The birth-rate in the city of Montreal, among the French Canadian population is now 64 per 1000, the largest birth rate in any country in the world.

tion of mankind; although it has other accessory ends, such as the comfort afforded by the society of man and woman, &c. In the exercise of the rights of marriage nothing can be done against its final end. Hence the condemnation of the crime (Genesis xxxviii. 9) in a mere natural point of view—God alone being the giver of life, the married parties are but His instruments in the bestowing of life. They have no more control over the beginning and continuation of life in the mother's womb than they have over the life of the child born. The fœtus in utero has the same right to the enjoyment of life, as the child after it is born. At the very moment of conception, there is, at least, material or physical life, and more probably *animated* life also, as many are of opinion that the *anima*, or soul, is united to the body at the very moment of conception. Even were that union to take place later, the fœtus enjoys already physical life of its own, and is intended by the law of nature to enjoy animated life: nay it has a right to it, of which right none, save the Master of life Himself, can deprive it. Hence, whether the union of the soul and body be consummated in the act of conception, or later, there is a violent and unlawful snatching of human life, if the fœtus be destroyed.

An objection may be raised: when the fœtus constitutes danger of death for the mother—a plea put forth by the strong and the weak alike—can it not be considered as an *invasor vitæ*, an offensive enemy, and cannot the mother's life be protected against that enemy, at the risk of destroying it? That danger arises from nature itself; and the mother, by assuming all the risks of her state, has submitted to it, and must abide by it. Besides, if the fœtus be an invader, it is an innocent one, and can no more be punished than an insane man who would kill a fellow man: no more than an innocent man could be put to death to rescue another from certain death. If it is alleged that the mother has a right to preserve her life, the same may be said of the fœtus; and if the mother had a right to deprive the fœtus of life, the fœtus would have the same right to deprive the mother of hers. From this we derive the principle:

1. It is never lawful to procure abortion *directly*, even though the fœtus be supposed to be inanimate, under whatever plea of averting death. It were homicide; at least anticipated homicide.

The great principle underlying this question is, in a word: "Thou shalt not kill." God alone is the Master of life, and He alone can take it away. This is the universal Christian code. Christian, did I say? Nothing can be added to the Hebrew teaching in this regard.

The sin of preventing conception denounced in the Hebrew Scriptures, e. g., as in the case of Onan, as "evil in the sight of the Lord," and the kindred crime of fœticide is held up

by the teachers of Judaism, the Talmudical and all Rabbinical writers as a sin which God can never pardon,—*omnia peccata condona, Deus excepta*—הוֹצִיא שִׁכְבַּת וְרַע לְבַשְׁלָה "hotsi shichbat zerang leba tela," i. e., who brings forth semen improperly or causelessly. "He who is guilty of the unnatural and detestable vice inherits Gehinnam," teaches the Talmud, in various places,—"he is worse than a murderer." In the Gemara or completion of the Talmud we are told that the disciples of a celebrated Rabbi asked him: how is it possible that one committing this sin should be worse, morally, than one who takes the life of a developed man who may be wise and good and useful to the State? The reply was: "in the latter instance he takes the life of a stranger, but in the former he unnaturally murders his own children." Again, in "Sepher Hammaaloth" it is taught, that he who does not duly perform the marital act is "a spiller of blood." To destroy the semen, or to procure abortion, is declared to be running counter to the will and intentions of the Supreme Creator who has already formed elsewhere the "zevug" or marriage match for the fœtus. The Talmudic code is crowded with the most minute instructions for the development of modesty and chastity. Thus, in the Mishua Treatise, Aboth, we read: "he who has had an *accidental* emission of semen is not to perform his ordinary devotions, much less the minister, or one who is to pray for the many." The constitutions concerning marriage, which fill a volume, give the most minute directions with regard to the "roheh kerî," (qui vidit semen) in other words, precautions to prevent the use of the same for any other purpose except that of raising virtuous children in Israel. The act is to be performed with absence of all levity, and rather with prayerful aspiration, that the issue may be for a "kiddush hashem," i. e., to promote the sanctification of God's name, in darkness and with all modesty. Early marriages are most strictly enjoined as a consequence of all this. "He who does not marry and raise children causes the divine presence (Shechinah) to depart from Israel," see Yoreh Deah, p. 1. Again: "he who has no wife is not to be called a man; but when he marries and has children, his sins will be forgiven him." A man who knowingly marries a barren woman is denounced as a fornicator—Yoreh Deah.

The result of such teaching is evident among the Jewish people. They are singularly free from the detestable crime to which I am alluding, and from that other, anterior to it, for which I can find no name, but which is so repugnant to the designs of the Creator.

WHAT ARE ITS LEGAL ASPECTS.

According to law, causing or procuring abortion is a felony—a "crimen animo felleo per-

petratum"—with a bitter or gallish inclination—a crime which at common law occasioned the forfeiture of lands and goods, and is classed with suicide and manslaughter. It is not, indeed, murder in the eyes of the law, for in order to make the killing, murder, says Stephens, it is requisite that the person killed be a reasonable creature, in being, and under the King's peace at the time of the killing. To kill a child in its mother's womb, therefore, falls under a different description of crime. But it approaches more nearly to murder, and murder most cowardly, than any other crime; for it cannot be pleaded that it is done without malice aforethought. The malice prepense, *militia præcogitata*, does not require to be towards the unknown, unseen foetus, and is, therefore, not so much malevolence to the deceased infant in particular, as any evil design in general—the dictates of a wicked, depraved, and malignant heart, as Foster expressed it,—une disposition à faire une male chose—which may be either expressed or implied in law. It may be taken for a general rule that an act of this nature is malicious, and *should* amount to murder, unless where *justified* by the command or permission of the law, or *excused* on account of accident or of self-preservation, as in cases where the accoucheur risks the life of the child to save that of the mother. But without these circumstances of justification, excuse, or alleviation, the earnest and oft times tearful plea "I don't want to be bothered with any more children" would not be sufficient in any court of justice, still less in the forum of one's conscience, where a faculty may still exist of judging of conduct with reference to some standard of right and wrong. There was an old Roman law by which the slayer of her own child was punished in a much severer manner than any other kind of homicide. After being scourged, the delinquent was sewed up in a leathern sack, with a live dog, a cock, a viper and an ape, and so cast into the sea. Solon the wise, in his laws, made none against this crime, apprehending it impossible, as Cicero says, that any one should be guilty of so unnatural a barbarity.

I have been at some trouble to search out the law on this question, as it has been more than once urged that the death of the mother alone jeopardises the life or liberty of the fiend who accommodatigly assists, or the woman who wantonly permits, or procures, or in any way wilfully occasions, a violent interference with the law of nature; and I find that as society advanced (?) the law was modified. By 43 Geo. III., c. 58, and 9 Geo. IV., c. 31, s. 13, it was provided that to administer a destructive thing to procure the miscarriage of a woman *quick* with child should be a *capital* felony; and if she should not be proved to have been *quick* with child, a felony punishable with transportation. But the law is now governed by 7 Will. IV.

and 1 Vict., c. 85, s. 6, which provides that whosoever, with intent to procure the miscarriage of any woman, shall unlawfully administer to her, or cause to be taken by her, any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever, with the like intent, shall be guilty of felony and liable to transportation for life, or not less than fifteen years, or to be imprisoned for any term not more than three years."

What says *science*? Apart altogether from those numerous ailments and diseases which follow in the train of such violations of the laws of God and of nature, and which a volume would be insufficient to delineate and pourtray, I shall merely observe that there is a peculiar condition of the os uteri brought about which is often the cause of subsequent miscarriages. The neck of the uterus, as Depaul observes, is a sort of sphincter muscle; and in many women this is in a lax condition, predisposing readily to abortion. With it there is indeed "a special irritability of the uterus, exciting it to relieve itself of its contents." How frequently do we not notice this condition in meddlesome females who, in the early months of married life, abhorring maternity, prevent it! yet who, at a later period, would sacrifice every thing short of life itself to regain the health they had wantonly sacrificed, and some at least of the lives they had so mercilessly brought to nought.

The indurated or hyperplastic condition induced by this wicked practice, indisposes the uterus to expand and yield before the growth of the fetus at a subsequent gestation. The uterus, on account of that induced congestion or hyperplasia, is, moreover, prone to assume an abnormal position, and to add thereby another element of discomfort to the mother, and of danger to the safe progress of future gestation. When, as it often happens, future gestations are denied, the sufferings are not less severe. Who, amongst us, cannot recall the haggard, anxious expression, the hollow cheek, the sunken eye, the pallid, sickly countenance, the uncertain gait, the pain in forehead, side, back and limbs, and that indescribable sensation of fullness, yet of emptiness, that feeling of dragging, or of gnawing in the hypogastrium, which attends the wakeful moments, and disturbs and hinders rest, and which is as

The pang where more than madness lies,
The worm that will not sleep, and never dies.
Thought of the gloomy day and ghastly night
That dreads the darkness, and yet loathes the light;
That winds around, and tears the quivering heart!
Ah, wherefore not consume it, and depart!

But to come back again from Byronianism to plain prose, can I exaggerate the misery and distress which follow in the wake of the unhappy misguided deflowerer of her own womanhood, who so completely divorces herself from all freedom from sickness or suffering for the future.

I can but faintly allude to that other sinful evil; that partial and incomplete act, equally, if not more mischievous, which the law does not contemplate; which the moral law alone can touch; and which God alone can see; yet which, to mention, reddens the cheek with confusion. To reduce to nothing, when immature, and to be no longer, is, without doubt, say some, a great gain; but to have never been, save in the fecundating principle which found no matrix to foster and maintain its life, is better! Oh Shame, where is thy blush! If there be such a power as Conscience, where is its office? Yet women, otherwise delicately-minded, chaste and virtuous; and husbands, otherwise considerate, and worthy of respect and honour, combine to thwart the designs of marriage; to engender a whole train of evils in one at least or in both; to violate the laws of God and of nature; and to conspire against the State.

This vital problem is obtaining solution too near our own doors for us to remain indifferent spectators. So far the pernicious teaching has done but little injury here; but, gentlemen, who is there amongst us to-day who will not be prepared to admit it has done some? Who amongst us has not been appealed to by married women in fashionable society to thwart the designs of Providence in their regard? And who amongst us does not know the earnestness of that appeal, where delicate health, narrow means, the claims of society, the displeasure of a husband, are urged most tearfully, in support of an undesired maternity, by those whom we would be disposed to befriend? What young man amongst us who has not been obliged to reject a proffered bribe where his impecuniosity seemed to give hope to the would-be fœticide? What practitioner, who has not found his advice "not to kill" spurned by one who looked to him for help in ridding her of the fruit she was bearing? Some years ago I was present at an interesting meeting of Physicians at Malone, N. Y., and the aged President dwelt, among other things, on this topic. He told us of a married lady, one of his best patients, healthy and affluent, who wished to be relieved, at an early period of gestation, of the legitimate fruit she was bearing. He expostulated, coaxed, and at length, threatened. She left his office, indignant at his want of complacence; and although he had attended her and her family for years previously, she never afterward went near him. But to continue his own story: "I had my own satisfaction, for of a fine afternoon, a young lady of eighteen summers, full of life, and health, and beauty, might be seen passing my window, little dreaming, and I would not have her know, how much she was indebted to the humble old man in his office near by for the continuance of the life she now so much enjoyed."

Gentlemen of the Canada Medical Association: Why do I enter into this matter at all while the beautiful and interesting fields of scientific discovery are so inviting? Believe me, I have no relish for it, and more than once have I turned with loathing from the task. But, let me ask, is there no necessity? Do you not perceive in spots here and there in our Canada, and chiefly along the border, a knowledge of the physiology of conception, and, alas! a knowledge of the means of its prevention, which would be better unlearned? It could not be that crimes which a Storer denounced in Massachusetts; a De Forrest or a Thomas in New York; or an Allen in Rhode Island, could have continued to be confined to the adjoining Union. Like the Colorado bug it would cross the border, and produce its work of mischief here. And it has been suggested to me that a few plain words proceeding from this chair—having a weight, a character and a quality which might be attached to the utterances of the occupant, honoured, for the moment, as the mouthpiece of this important Association—would not be misplaced or ill-timed.

Case of Cerebral Tubercle, by Wm. Fuller, M.D.,
Professor of Anatomy, University of Bishop's
College.

GENTLEMEN,—The case which I am about to relate has been of sufficient interest to call together in consultation several of the best medical minds of this city, and has brought forth various conjectures as to the nature of the disease, which was very obscure. The subject was under my care for a short time before his death, and the following is the history of the case—as near as I could obtain it—and the symptoms which presented themselves to notice:

J. Y., aged 35 years, Scotch, wiry constitution, dark complexion, open intelligent countenance, active habits and quick movements, formerly a passenger conductor G. T. R., but lately carrying on business as a retailer of boots and shoes, was struck on the back of the head about five years since against a bridge while passing through on the cars. He was knocked insensible, but for how long I was unable to learn. However, since that time up to eighteen months ago he appeared to be in good health and was very efficient in his business. He was very lively in company though temperate. It was noticed since that time that he had acquired a peculiarity in his manner, was eccentric, so much so as to have acquired the nickname of "Crazy Jim." He had an extravagant

notion of dress, which was without taste, and he would frequently, when engaged in conversation on other subjects, ask the person talking with him if this or that color was suitable for him. He had also extravagant notions of making money which agitated him up to the last day he could utter an intelligent sentence. If another proprietor of a boot store put out a new sign he was in a great state of agitation, until he should get something better so as to attract more notice. I mention these, among many other things which I heard of him, to show the excitable state of his mind and his ruling passion.

Eighteen months ago he complained of a severe frontal neuralgia fixed in one spot just above the outer angle of the frontal bone on the right side. For this he was treated for several months, with only occasional relief. A change now came over his character; he neglected his dress, began to lose his memory, and his usual energy in business abated; his intelligence and spirits failed. His credit was affected because it was suspected that he drank, which, however, was not the case to any extent, though he took an occasional glass. He was frequently seen to sit holding his head in his hands as if in great pain. Three months ago he began to be very drowsy, would fall asleep behind the counter, lie down upon the leather, floor or anywhere, would sleep at meals and while in conversation. Shortly after this he began to talk foolish, after the manner of a mild delirium; imagining that he had just returned from travel to the old country, &c., relating what he had seen. He slept during the day and spent the night in wandering through the house. His appetite was not good at this time, and bowels confined four or five days at a time. It was now thought better to remove him to an asylum, where he stayed one week, and, as he was pronounced by the medical superintendent, Dr. Howard, to be a hopeless case, and that he would soon die, he was brought home, where he remained about one week when I saw him for the first time. What I have related above I obtained from various sources among his friends, and as this history was related before his former medical attendant without comment I suppose it to be correct as far as could be obtained. There was no history of syphilis or tubercle in his family, nor is there evidence in the lungs; once when there was severe pain the

right eye was turned inward. He has never vomited. His sexual desire has diminished for some time, and of late is entirely absent? There is at present a slight divergence of the eyes; he complains of dimness of the left eye, so that the outline of a figure only is observed which he sees indistinctly, left eye slightly more open than the right; upon elevating the brow right side more corrugated; mouth drawn to the right side slightly, and left side of the face shows less expression than the right. There appears to be partial loss of power, but not total paralysis of any of the muscles of the left side of the face, and, as evidence that it is a loss of power rather than spasm of the muscles of the right side, as suggested, it was observed that, when asleep, the right side wore a pleasant natural expression, while the left eye was slightly open and the left cheek fell loosely and puffed with the breathing. He has had fornication occasionally in the feet and legs. His general movements are stiff and his gait slow and somewhat tottering. There is no localized weakness other than that mentioned. His intellect is clear at times for short periods, but soon relapses into a mild delirium of the imagination; calls individuals with whom he is well acquainted by wrong names, and associates them with circumstances which have never transpired; is very desirous to recover; expresses anxiety about the cost of the means, and occasionally about the state of his business.

This date is about October 15th. Morning, pulse 80; temperature normal—evening, pulse 90° temperature 100°; complained of chilliness, and it was further observed that there was an cedematous swelling of the right temporal region limited by the boundaries of the temporal fossa. From this date to the 22nd Oct. there was little variation of his symptoms; complained very much of chilliness, wandered about at night and slept in the daytime. Had continuous pain in the frontal region, with more violent exacerbations occasionally. Asked frequently for beer, which made him sleep, and it was remarked that always when he had severe pain he could drink any amount of stimulants without the least effect, while a very small quantity affected him when there was no pain. Temperature registered twice in the evening 100° during this period.

October 22nd. Considering the former injury,

at the site of which there was a scar but no depression in the skull, the period during which there was an excited condition of the mental faculties followed by a localized pain in the frontal region of severe character, to which he always pointed as the seat of his distress, the local œdema near this point, the chills and variable temperature, the stiffness and formication in his limbs, the intellectual debility and excited imagination, together with loss of expression in the opposite side of the face, led me to believe that this was a case of abscess, probably between the dura and skull in the frontal region, if not in the substance of the anterior lobe. I inclined to the former view, because of the œdema, and because his intellectual faculties could be roused into action at times, implying that the function of this part was interfered with rather than destroyed. With these views all present assented, at least so far as to justify an exploratory opening into the cranial cavity. Accordingly the skull was opened by a trephine, about two inches above the external orbital angle of the frontal bone; no pus was found, and the dura had a healthy appearance. A director was passed downwards and also forwards to the extent of an inch in each direction between the membrane and bone without success, finally the dura mater was opened, the brain appeared healthy, and there escaped a small quantity of serous fluid, which also had a healthy appearance. The wound was not closed but left open to permit free drainage which, in my experience, is very important where there is an opening into the sack of the arachnoid as well as other serous cavities. It was thought best at this juncture to reconsider the factors upon which a diagnosis was made and to wait for events.

It must be confessed that the case appeared at this time somewhat foggy, and three theories or conjectures were advanced to elucidate the problem: 1st. Spasmodic neuralgia, to which I could not agree, for the reason before stated, that the symptoms were rather paralysis of the left side of the face. 2nd. Spiculæ of the internal lobe of the skull at the site of old injury, causing irritation of the meninges. However, against this theory was the fact that there had been no convulsions, so common in affections of the middle and posterior lobes of the brain. 3rd. Abscess in the substance of the anterior lobe, the evidence of which has been related.

To return to the case, nothing remarkable occurred after the operation. He took his tea at the table the same evening, and at ten p.m. I found him sitting by the stove, discussing the situation, and apparently none the worse. There had been considerable escape of serum from the wound, so as to saturate the bandage, and his conversation was less wandering than before the operation, a fact which I assured myself of by staying some time with him, and which was also noticed by his friends.

Oct. 23rd, 24th, 25th.—Pulse 80; temperature normal; abundance of serum from the wound, which has a healthy appearance. Mental condition better; talks for the most part rationally; slept almost all night; desires beer, and has been allowed half a glass at bed-time, which produces sleep.

26th.—Wound looks a little inflamed on the margins; temperature 100 $\frac{3}{4}$; removed two stitches which partially closed the incision. To take a "black draught."

27th.—Better; temperature normal; wound healthy.

28th.—Restless night; mind disturbed when awake with former imaginations; less discharge of serum from the wound, some pus and the bottom looks white; is sleepy, and does not wish to be disturbed. From this time to November 8th he had relapsed into the condition before the operation, and the wound had healed until a small scab occupied the place and no discharge.

Nov. 8th.—Was up the whole night, crying with pain "Oh my head!" He was attacked with violent nervous agitation like a fit of ague, though he was not cold. Pulse or temperature could not be taken. In the evening retained food a long time in the mouth before swallowing.

Nov. 9th.—Great pain, all night but remained in bed, slept a little in the morning; very quiet and dosing to-day; less muscular agitation; speaks thick; has difficulty of swallowing but ate a little. Delirious toward evening, and grasping as if at objects in the air. Pupils normal and equal; flushing of the face as in meningitis in children.

Nov. 10th.—Violent jerking agitation of the whole body; semi-comatose condition; stertorous breathing; hiccough; mumbling of words as if trying to speak; frequently puts his hands to his forehead. Pulse and temperature could

not be taken on account of the agitation of the muscles. Took a few spoonfuls of beef tea.

Nov. 11th.—Condition unchanged; pulse was found to be irregular; wet the bed; had difficulty in passing urine; bladder empty, bowels confined; flushing of the face. It was to-day discussed as to the propriety of aspirating the anterior lobe of the brain, but, as it was thought that the symptoms were too generally resembling more a case of meningitis at the base of the brain, 2 grs of croton oil was given at 7 p.m., which operated freely at 10 p.m.; the contents of the bowel passed unconsciously.

Nov. 12th.—Rested better last night, quieter this morning; face less flushed; pupils normal but divergent squint; frequently turns his eyes toward the left side and groans, putting his hand to his forehead. Toward evening he relapsed into muttering, grasping, for objects and agitation. I then thrust an aspirated needle into the brain in three directions. 1st, directly into the anterior lobe, ($1\frac{1}{2}$ inches); 2nd, toward seat of pain in the forehead (2 inches); 3rd, backward and downwards towards the corpus striatum, ($2\frac{1}{2}$ inches). This procedure produced no effect, nor was pus discovered. However the next day, November 13th, I was surprised to find him quite conscious, no jactitation or tremor, very quiet, and with a pulse of 64; temperature normal. I told him to use a pickle bottle when he wished to urinate, which he understood well, took the bottle, adjusted himself and filled it, remarking that it was a handy article for the purpose. Gave potass iod. gr. 20 every 2 hours.

14th.—Rested tolerably well; not much pain; conjunctivitis of the right eye; condition same.

Nov. 15th and 16.—Gradually sinking; pulse rapid; looks pale; takes no nourishment; semicomatose; puffing of left cheek; eye half open and corners of the eyes filled with a yellow secretion; right eye still inflamed, pupils equal, more contracted.

17th.—Very restless night, violently agitated, tries to speak, and to tear his clothing. Died at 1.30 p.m.

AUTOPSY 20 HOURS AFTER DEATH.

Scalp bloodless; *calvarium* smooth, and presents nothing abnormal on either surface. Site of trephining in condition as stated above.

Dura Mater.—Corresponding to the circular orifice in the skull-cap is an elevated spot on this membrane, roughened, but not inflamed. Pacchionian granulations numerous.

Surface of Brain.—No effusion or lymph. Veins of the pia mater moderately full; the smaller ones on the surface of the right frontal lobe not so much so as those on the left, hence this part appears somewhat paler. At the point on the pia mater corresponding to the site of trephining there is a diffuse redness of the membrane, due to a thin extravasation. The surface of the right frontal lobe looks flatter than the corresponding one, especially along a line parallel to, and half an inch from the longitudinal fissure. At a point corresponding to about the middle of the second frontal convolution pus oozes from a slight laceration, caused probably in the removal of the organ.

A section of the right hemisphere, made about an inch above the corpus callosum, and carried through to the surface, shows the white matter looking healthy, and the puncta vasculosa well marked. At the periphery of this section there is a localized spot, about half an inch above where the pus was seen oozing out, greyish yellow in color, as if infiltrated with purulent matter. Immediately below this is an abscess, half an inch by three-quarters of an inch in extent, involving both grey and white matter of two convolutions, and corresponding closely with a portion of dura mater beneath the site of trephining. The pia mater over the spot, and in the sulcus, is congested, and a little thickened. The abscess is made up of two spots of suppuration, separated by a wall of white substance, the contents being reddish grey pus. Two suppurating lines separated from each other by a narrow portion, run from these spots through the white substance, in a direction downwards and inwards, each somewhat larger than a quill. Unfortunately, owing to the fact that these sinuses were not discovered until after the slices had been removed (the section having gone between them) their mode of termination was not made out, unless an ecchymosed and somewhat softened spot at the anterior and outer angle of the right corpus striatum represented the end of one of them. The walls of the abscesses and their prolongations were soft and suppurative; the white matter about congested and ecchymotic.

Nothing worthy of note was found in the grey or white substance of the other lobes of either hemisphere.

On exposing the lateral ventricles these cavities look of normal size; walls in places granular; choroid plexuses dark. The right corpus striatum appears flatter than the left, and has a greyish-yellow tint, while to the touch it is yielding and semi-fluctuating. On section it presents a soft, greyish-red appearance, and the elements separate under a gentle stream of water. This condition of softening involves nearly the whole corpus, extending posteriorly into the thalamus, and outwards and downwards for $\frac{1}{2}$ inch into the substance of the frontal lobe. Portions from these parts show under the microscope: (1), broken down and degenerating nerve filaments; (2), compound granular corpuscles, very abundant; (3) hæmatoidin grains and crystals. The greater part of the right thalamus opticus, the left, and the left corpus striatum, appear normal.

Base of Brain.—No lymph or effusion; arteries healthy. On the right half of the optic commissure the pia mater is matted and thickened, and the same condition extends for a short distance along the right optic tract. On the side of the crus just in front of where the tract winds round it, is a greyish yellow nodule, the size of a pea, attached to the pia mater. The roots of the various nerves, at their superficial origins, appear normal.

On following out the right sylvian fissure a bunch of tubercles is found on the meninges situated in the receding angle formed by the convolutions of the Island of Reil and the deeper ones of the frontal lobe. The group is made up of six or seven greyish yellow masses ranging in size from small peas to small marbles, closely matted together and partly imbedded in the brain substance about them. A branch of the middle cerebral artery runs upon the surface of the mass, the calibre of which, on slitting it up, is found considerably diminished, but not obstructed. The brain substance about the tubercles is softened, more especially towards the deeper part of the frontal lobe, where it is continuous with the softened area about the right corpus striatum. A section through the group shows that the bodies composing it are closely united together by condensed meningeal tissue of a dark red colour. On separating the left sylvian fissure another somewhat smaller bunch of tubercles is met with, occupying a very similar position to that described in the right, only a little further back in the fissure, and not so much imbedded in the brain substance; six or seven tubercles, the size of peas, compose the mass, and present the usual character of these growths; the central part of each is yellowish in colour, firm and dry,

and made up of finely granular matter and the remains of corpuscles. At the periphery the tubercle cells are abundant, and mingled with them are irregular masses of protoplasm, giant cells. The small arteries in the neighborhood of the tubercles present an increase in the cells of the adventitia, but not to the extent seen in cases of acute tubercular meningitis. *No miliary tubercles were found.*

Lungs and other organs healthy. No tubercle found elsewhere.

Some of the Sequelæ of Pleurisy.—By ALEXANDER B. BLACKADER, B.A., M.D., M.R.C.S. Eng.; late Resident Assistant to the Brompton Hospital for Diseases of the Chest, London, and late House Surgeon Great Ormond Street Children's Hospital London. Read before the Medico-Chirurgical Society of Montreal, December 14th 1877.

The inflammatory affections of the chest, even after all their immediate symptoms may have passed away, call forth the anxious thought of the physician, in reference to the sequelæ that may so often follow them.

The dregs of inflammatory changes linger about this region, in a way they appear to do nowhere else, taxing all the powers of the constitution in the effort to throw them off, and occasionally after a period of latency, extending perhaps over years, originate, directly, or indirectly, fresh mischief, which slowly undermines the vitality.

The sequelæ of the pneumonias, especially the chronic and catarrhal forms, we are all more or less familiar with and dread. Bronchitis in a more open manner leaves its remains behind with sufficient frequency to keep us on our guard; but the effects of pleurisy appear to me to some extent to have been overlooked, and underestimated, perhaps, because more latent and less frequent.

Indeed many authors appear to think that it is a very infrequent occurrence for any serious lesion to follow, even after a somewhat protracted attack. I cannot say this agrees with my own observations.

Out of 124 cases of phthisis received into Brompton Hospital whose histories I made out, 14 had a distinct history of primary attack of pleurisy, so far as could be ascertained only simple and unilateral. While among the outdoor patients, although I have no distinct records as to numbers, it was a matter of frequent remark how often the contracted and nearly motionless side told the tale of previous pleurisy.

Dr. C. J. B. Williams in his work on "Pulmonary Consumption," though classing them under

the general head of "Cases Arising from Inflammation," gives several instances where apparently the phthisis had its direct origin in either acute or chronic pleurisy. In children, though pleurisy has generally a favourable termination, and they appear sometimes in a wonderful way to outgrow completely the subsequent contraction, yet in them the disease, more frequently than in the adult, terminates in empyœma, with its accompanying train of fresh dangers. To-night, therefore, I propose very briefly, to lay before your notice some of the lesions which I have occasionally observed to follow pleurisy, and will hope that, in the discussion which may follow, I may elicit from other members their opinion as to how far my observations agree with their own.

These lesions may be arranged, I think, in three groups, as follows :

- 1st. Those which result simply from the inability of the lung to expand, owing to the fibrous adhesions.
- 2nd. Those which are due to the formation of new growth through the lung.
- 3rd. Those due to purulent absorption, after the pleurisy has become an empyœma.

I am aware that many consider my first-class a myth, and deny entirely that any evil results follow from this inexpansive condition. Austin Flint, referring to adhesions, says, "however extensive, they occasion no appreciable disturbance of respiration. They are in fact innocuous, and perhaps confer exemption from recurrence of pleuritis on the same side, nor do they give rise to any distinctive physical signs."

Certainly a prior reasoning would not lead us to imagine it to be an advantage thus to have a lung done permanently up in splints, and I cannot say that my observations would lead me to agree with his statement, for I think, if we notice carefully, we shall find two different conditions brought about, according as the adhesions on the one hand are partial or merely local bands; or, on the other hand, the lung is universally adherent.

These local adhesions or bands interfere comparatively slightly with the movement of the chest wall, but prevent altogether a certain portion of the lung tissue from expanding, especially the alveoli towards the upper portions of the lung, and at the back near the spine. As a consequence, we must in time get a compensatory emphyœma of those portions which can expand. It is condition of things which I have several times thought I saw in the out-patient room. The following is an example from an in-patient.

George B—, bricklayer, æt. 46, admitted into

Brompton Ho-pital March 6th, 1877. No family predisposition; habits steady; eight years ago suffered from pleurisy on left side; was three weeks in bed; six weeks ill altogether; thought he quite recovered from the illness; following winter suffered from cough, which, though better during the summer, grew more troublesome each succeeding winter. For the last two years has never been quite rid of it.

On admission complained of cough, not very severe, accompanied by frothy expectoration; pains through chest, chiefly left side, and some shortness of breath. He was a short built man, fairly nourished

Measurements of chest :

Above nipple : R. $16\frac{1}{4}$; L. $15\frac{3}{4}$, $\frac{1}{4}$ in. movement $\frac{1}{2}$ in. on deep inspiration, chiefly on right side.

Below nipple : R. $15\frac{1}{2}$; L. $15\frac{1}{4}$, $\frac{1}{2}$ in. movement, $\frac{3}{4}$ on deep inspiration, chiefly on right side.

Physical Signs.—*Left* : percussion resisting anteriorly, dull to 2nd rib; respiratory murmur very deficient, and slight bronchial click occasionally above; expiration much prolonged below. *Right* : somewhat hyper-resonant; respiration harsh; 2nd sound accentuated over pulmonary.

He remained six weeks in the hospital, and was sent out with his physical signs much about the same, but his general condition much improved. In this case I would trace the beginning of his trouble to the attack of pleurisy, eight years previously, which probably left some strong adhesions towards the middle or upper part of the left lung. This prevented the air-cells above in great measure from expanding, and gave rise to an emphyœmatous condition of the lung below, and this again in turn, owing to deficient aeration would cause obstruction to the circulation, as evidenced by accentuation of 2nd sound over pulmonary artery, and a congested state of the lining membrane of the bronchi and alveoli, as shown by the frequent bronchitic symptoms.

Some may object to a case like this, that the pleuritic adhesions are the sequence, not the antecedent, of the emphyœma. As Dr. Douglas Powell has pointed out, when a portion of lung becomes damaged in texture by disease, it ceases to follow accurately the expansive movements of the chest wall. A certain gliding or rubbing motion takes place between the two normally corresponding pleural layers at this point, friction, local pleuritis, and adhesion result. No doubt this is the order of things occasionally, bringing about a precisely similar state in the end; but, in the case I have quoted, the definite attack of

pleurisy at the first certainly points to it as being the originator of the mischief, and I have no doubt that, in a good proportion of the cases, a similar history may be made out.

In the other condition, where the lung is universally adherent, and the chest wall prevented from expanding, we get in the end a somewhat similar state of affairs; of course it is quite possible that the sound expansile lung shall do the additional work thus thrown upon it without indicating an appreciable disturbance of the respiration, as Flint says.

Probably in most cases it does do so, as long as there is no great strain put on the respiratory function, but in many cases I think we will find some indication of interference as shewn by the state of chronic bronchial catarrh which these persons are so liable to suffer from. A condition of things due, as in the case of George B., I have just mentioned, to the want of aeration of blood in the affected lung, producing passive congestion in it, and a more active hyperæmia in the lung on the opposite side.

In the second class, in addition to the effect produced by rendering the lung inexpandible, we have a definite hyper-activity of the fibrous elements in the interlobular connective tissue—beginning apparently in the lung tissue adjacent to the thickened pleura, and gradually extending through the whole lung. This new growth afterwards undergoes contraction, producing the tough indurated condition of the lung, with dilatation of the bronchi known as fibrosis.

That pleurisy is an occasional starting point of this condition there can be no doubt, and the cases I shall presently lay before you are, I think, instances of it; but the exact way in which it originates these changes is still uncertain.

Probably, in many cases, we may have a low form of pneumonia supervening; but, even without distinct pneumonic symptoms, may we not find, in the state of chronic passive congestion in which we suppose the affected lung to be, a sufficient originating cause of this new interstitial growth, which afterwards goes on to contraction.

While in the increased blood supply, caused by the two pleural surfaces uniting, the supply which was formerly on one side only being now derived from two sides, viz., both the parenchyma of the lung and the parietes, may we not look for an explanation of the hyper-activity of its fibrous elements.

Without any further attempts at explanation,

which I would leave to others abler than myself, permit me to give you briefly, as fair examples of the progress of this degenerative process, the following clinical histories:—

Annie H., æt. 22, single; admitted into Brompton Hospital Oct. 30, 1865, under the charge of Dr. Cotton. Her father and mother were, at that time, both alive and healthy, and there was no history of phthisis in any of her immediate relations. She was of a nervous sanguine temperament, of a slight build, and had enjoyed fairly good health up to the spring of the preceding year, when she was attacked by pleurisy in the right side. This she told me confined her to her bed for several weeks, but she thought she had quite recovered from its effects, till some months afterwards, when her cough became troublesome; was not aware of any fresh cold.

On admission (sixteen months after the attack of pleurisy) the symptoms were as follows: troublesome cough, with scanty expectoration; pain in the right side; night sweats and considerable loss of flesh.

Physical signs.—Right side—anteriorly—percussion dull, especially towards base; respiration very harsh; posteriorly—dull all over supra spinous fossa, bronchial breathing with subcrepitant rhoncus; posterior base; respiration very weak.

Left side, respiration simply harsh.

She remained six months in the hospital, gaining, during her stay, over 12 lbs. in weight. On leaving, she again entered service, and was able to do her work fairly well.

Four years afterwards she was re-admitted. The cough was still very severe, but there had been no loss of flesh in the interval; contraction and flattening had taken place on the right side, where the respiratory sounds were now noted as being almost cavernous. The left lung was slightly enlarged, and the respiration over it harsh and blowing. On leaving, her weight is noted as 102 lbs., a gain of an additional 4 lbs.

In June, 1874, that is, after the lapse of another four years, she was again re-admitted for a short time. Her health had remained fairly good during the greater part of this interval, and, with but few interruptions, she had been able to perform all the duties of her place. For the last twelve months, however, she had been failing, and a slight hæmoptysis had occurred, which somewhat frightened her. She remained in hospital for a short time, during which she again had improved. On leaving, the physical signs were about the same as before.

In January of the present year she was again re-admitted under the charge of Dr. Powell. She was now much worse; renal mischief having supervened in September of last year. Her cough was now particularly severe, causing frequent retching; the expectoration very viscid, purulent, and somewhat offensive; pain sharp through the right side; both feet slightly œdematous; urine highly albuminous. P. 104, R. 24, T. 99.2 M., 99.6 E. The physical signs were as follows: marked flattening between right collar bone and nipple; scarcely any expansion on right side; heart's apex normal situation; resonance of left includes sternum to line of junction of inner with middle third of right clavicle, to right of which dullness not absolute on percussion; respiration over dull portion (*i. e.* right side), harsh, weak with prolonged expiration; no moist sounds.

Posteriorly—there was marked curvature of the spine with concavity to the right, opposite base of scapula; right shoulder was lowered, and the angle of right scap. was $2\frac{1}{2}$ in. from spine, while that of the left was 2 inches above its level and 4 inches from the spine.

Right back on percussion generally dull; respiration weak, with occasional doubtful crackle; slight increase of vocal fremitus and vocal resonance in upper scapula region; over the whole of the left side there was good resonance with exaggerated breathing. The liver was slightly enlarged.

During her stay in hospital this time she lost ground. The renal mischief increased; her appetite failed, and she lost flesh rapidly. At my last examination, submucous rales, with bronchial breathing, were heard at left apex. She left hospital in May. Two months afterwards I happened again to see her. She was in St. George's Hospital. The symptoms had again somewhat improved.

This case is so highly characteristic as to leave no room for doubt as to the nature of the changes that had taken place.

Its chronicity; the long continued one-sidedness of the disease; the slow failure in the general nutrition; the severe paroxysmal cough, accompanied by retching; the character of the expectoration; and, above all, the physical signs: increasing contraction, deadened percussion note, weak bronchial respiration, almost cavernous at parts, all point to fibrosis.

The post-mortem, as far as I know, has not yet taken place, but you may almost draw the outlines of the picture for yourselves.

The hard contracted right lung firmly adherent to the parietes by a dense and much thickened pleura; the indurated and probably pigmented tissue of the lung penetrated by fibrous bands extending into it from the pleura; the bronchi much enlarged, and in some places dilated into cavities; the liver probably increased in size by amyloid degenerations; the kidneys granular, with perhaps some amyloid changes also.

The second case is somewhat similar, but differs in the earlier supervention of pneumonic symptoms at the apex of the sound lung, from which spot there is little doubt the hemorrhages took lapee.

John M., æt. 34, policeman, was admitted into the wards of the Brompton Hospital, under the care of Dr. Douglas Powell, November 30, 1876. He had no hereditary tendency to phthisis. At the age of twenty he had suffered from an attack of pleurisy in the left side, which had confined him to the house for about six weeks, but from which, according to his own statement, he completely recovered and resumed his duties. Shortly after this he began to suffer from a winter cough, which gradually increased in severity. In November, 1873, first noticed a slight hæmoptysis, but so slight as to give him no alarm. Eighteen months afterwards, viz., April, 1875, he had another attack, but more profuse, confining him to bed for some days; this recurred again in August of that year, and in July of the following, four months before admission. On admission the physical signs were noted as follows:

Measurement R $17\frac{1}{4}$ in.; $15\frac{3}{4}$ L, below nipple.
R $17\frac{1}{2}$ in.; $15\frac{3}{4}$ L, above nipple.

Left side, marked flattening, and compressed from before backwards; very little movement of left base. Heart's apex, 5th space in. $\frac{3}{4}$ outside nipple line.

Left side, generally dull. Most resonant inter-scapular region; respiration weak. Tubular between 2nd and 4th ribs, outside nipple line, where cavernous gurgle heard in cough. Posteriorly, respiration weak.

Right side resonant to centre sternum; percussion hard under clavicle; respiration, harsh here, with slight crackle on cough. Supra specios fossa; slight humid crepitation; heart sounds natural.

P. 88, R. 22, T. 99.5 evg., 98.4 morning.

Expectoration abundant, purulent. No pains in chest. Much shortness of breath on least exertion. No night sweats.

He remained in hospital three months, during which he gained four pounds in weight. On going out he resumed duty, taking a shorter beat and doing

no night duty. The final note in regard to him is as follows: Left sounds drier; right, still slight crackle under clavicle below 2nd rib. Respiration exaggerated. Pulmonary condition, stationary; general condition improved.

In both these cases I would simply call your attention to the apparent complete recovery from the pleurisy, and the absence at first, as far as I was able to ascertain, of any pneumonic symptoms, as evidenced by cough and expectoration. These only supervene after an interval of about a year.

In the third group we have, as the result of the absorption of purulent matter in the chest, hectic fever, amyloid degeneration of the internal organs, and acute tuberculosis.

Associated also with empyœma in children, we occasionally find a catarrhal pneumonia of the base of the opposite lung. Cases of the first and second are, unfortunately, too frequent, and in a brief essay like this require me only to mention their names.

Instances of acute tuberculous following chronic pleurisy and empyœma are by no means uncommon. The following are the brief notes of a well-marked case. Similar instances may, perhaps, have presented themselves to many of you:

Frank C., footman, æt. 22, was admitted into hospital, February 21st, 1877. Both his parents alive and well; but mother's brother died of phthisis. Has enjoyed good health up till October, 1875, when he was laid up for some time with an attack of pleurisy in the right side. Has never felt well since. A slight tickling cough has remained, expectoration only slight. Occasional sharp pains through right side. Latterly night sweats have supervened. Has felt much worse on past few days. Ten days ago spat up a small quantity of bright blood.

On admission:—Skin hot and pungent; cheeks flushed, but face otherwise pale; lips slightly livid; much breathlessness; cough troublesome, but expectoration scanty; bowels confined.

P. 132, R. 34, T. 103.4, M., 104.6, W.

Chest fairly shaped. M. east. R 15½; L 16¼ below.
R 16; L 16½ above.

Right side, percussion generally defective; respiration (everywhere bronchial) with numerous submucous rales; all over left side fairly resonant; respiration bronchial under clavicle, with occasional rale.

His temperature remained very high, and I may say here that salicylate of soda was administered with temporary benefit in reducing the temperature, but in a few days produced so much gastric irritation it was obliged to be discontinued. His case rapidly

assumed a typhoid condition, and he died three weeks after admission.

P. M.—Body much emaciated. Right lung firmly adherent to the parietes, but, towards the base, was a thin layer, about ½ thick, of caseous material between the two pleuræ. Both lungs much congested and studded throughout with minute grey granulations. A few granulations were also found on the pericardium. A few on upper surface of liver, on peritoneum, covering under surface of diaphragm, they were quite numerous. Convolutions of brain were flattened, and membranes very vascular. Numerous granulations in both sylvian fissures.

There can be no doubt, I think, in this case, as to the origin of the tuberculous infection. On a future occasion I hope to be able to lay before you the histories of some cases of empyœma, occurring at the Hospital for Sick Children, Great Ormond St., with their terminations, and to enter more fully upon this portion of my subject. For the present my object will have been attained if, by these few unconnected, and somewhat hastily arranged jottings, I direct attention to a subject which has perhaps been sometimes overlooked, and induce those with larger experience than myself to give the results of their observations in regard to it.

Montreal, December, 1877.

Progress of Medical Science.

SIMPLE MODE OF RELIEF FOR FOREIGN BODIES IN THE THROAT.

A British naval surgeon, Dr. Beveridge, states that for foreign bodies in the throat, such as pieces of meat, etc., a simple mode of relief is to blow forcibly into the ear. This excites a powerful reflex action, during which the foreign body is expelled from the trachea. The plan is so easy of execution that, if there is anything in it, it ought to be generally known and applied.

GROUP.

Le Monde gives an account of a case of croup recently successfully treated by Dr. Durodié, by means of scraping the larynx. The method employed was to rapidly introduce the left index-finger into the pharynx, so as more surely to reach the upper laryngeal opening; then, with the right hand, insert a piece of curved whalebone, having a small piece of sponge fixed at the end, which had been soaked in warm water. After moving the instrument up and down three or four times it was quickly withdrawn, and the operation repeated. This took place three times at each *seance*.

The sponge when removed was always covered with debris of false membrane. The instrument has a reflex as well as a mechanical action, causing spasmodic movements, which provoke the ejection of the false membrane. In M. Durodié's case the child rapidly recovered.

LACERATION OF THE FEMALE PERINEUM.

The following clinical lecture, by Wm. Goodell, M.D., Professor of Gynecology in the University of Pennsylvania, is published in the *Boston Medical and Surgical Journal*. Dr. Goodell said:

"I intend to operate before you to-day for laceration of the female perineum. This accident generally occurs among the poor who are attended by midwives or medical students. Rents of the perineum are called complete or incomplete, according as the sphincter ani is or is not involved. Most commonly the rent is incomplete.

CAUSES OF LACERATION.—"The causes of a laceration may in general be divided into two. One cause is the common, faulty mode of supporting the perineum. The diversity of opinion in this matter of support is very great. My advice to you is to make your support or retarding pressure (to imitate as nearly as possible the course of nature) directly to the head itself and not to the perineum. When the perineum is very rigid I relax it by hooking up and pulling forward the sphincter ani with two fingers passed into the rectum, while with the thumb of the same hand I make the needful restraining pressure upon the head. Lacerations from this cause generally stop short of the sphincter ani. Another cause of this injury is a forceps delivery. Why is a forceps delivery so often the cause of injury to the perineum? In the first place, through a false delicacy, many physicians deliver the child under the sheet. They work in the dark, and of course cannot see what they are about. Under these circumstances, in difficult cases, the physician, worn out by direct traction, is very likely to brace one or both of his feet on the edge of the bed. The traction thus exerted is uncontrollable, and when the head passes the brim, which is usually done with a jerk, its momentum cannot be checked before it has torn its way through the perineum. Again, in cases apparently requiring but little traction, the use of the forceps will often occasion a slight tear in the vagina, which the passage of the shoulders prolongs through the perineum. Delivery by the forceps, even in skillful hands, will often produce a very bad rent involving the sphincter ani. My advice therefore to you is that in general, and always with primiparæ, you take off your forceps as soon as the perineum begins to bulge, and that you leave the final delivery of the head to the expulsive efforts of the patient.

THE PRIMARY OPERATION FOR LACERATION.—"But supposing that, in spite of the greatest care, a rent has been made. What is then to be done? First, discover the rent. You may smile, but you should know that from over-delicacy or carelessness on the part of the physician lacerations are continually escaping notice until it is too late to perform the primary operation; the torn flesh has healed, preserving the rent. You should make it an inflexible rule after every delivery either to look at the perineum or to gauge its thickness between the thumb in the vagina and the index finger in the rectum. If you discover a rent your method should be, immediately after the delivery of the placenta, to pass deeply two, three, or even more wire sutures, securing each one by merely twisting its ends together. Each suture is entered about an inch from the cutaneous margin of the wound, and is made to emerge on the mucous membrane of the vagina very near the edge of the raw surface. The first stitch must always be put in a little below the lower angle of the wound. Should the lochia obscure the parts, dam them back by a sponge pushed well up into the vagina, and don't forget to remove the sponge before you twist the ends of the wires together. Then draw your patient's water, put a pad between her knees, and bind them together. If the rent is incomplete no other treatment is necessary except that of keeping the bowels bound for a week. But when the rent extends to or through the sphincter ani, or when several deep sutures have been introduced, then the same precautions must be gone through with, namely those of drawing off the urine, of binding the knees together, and of keeping the bowels costive, etc., as I shall enjoin upon you when describing the after-treatment of the secondary operation. While warmly advocating the primary operation, I have not found it on the whole so successful as the secondary. Thus by the former I have had two failures so far, by the latter none. Failure in the primary operation is usually owing to the irregular surface of the rent, which prevents exact coaptation, and to the lochial discharges which insinuate themselves between the surfaces of the wound and hinder union.

EFFECTS OF LACERATED PERINEUM.—"Let us suppose, however, that, as in the case before us to-day, the laceration was not discovered, until entirely too late for immediate treatment and that the woman has gone about until this day with vulva and anus torn into one great opening. A woman under these distressing conditions suffers untold miseries. The sustaining power of the vaginal column is impaired by such an injury to its perineal abutment, and the bladder and womb tend to sag down. The vulva gapes, it acts no longer as an elastic, air-tight valve, and the womb and vagina become

irritated and congested by the air which gains access to them. The air thus sucked up into the vagina is liable to escape audibly, constituting that disorder which the Germans call 'garbularity of the vagina.' Again, rents of this kind are attended with more or less impairment of the sexual function. The sexual act is blunted on the part of the male, and imperfectly responded to by the female. The shortness of the vagina causes the semen to be rejected, and the woman becomes barren. Last and most grievous result of all, there will be a constant involuntary escape of flatus, and an incontinence of the feces when at all liquid. The woman's clothing is soiled without warning: her person becomes repulsive to her husband, and her company undesired by her friends. Seclusion and mental anguish undermine her constitution. To keep her bowels costive the woman is obliged to rely upon daily doses of opium.

THE SECONDARY OPERATION FOR LACERATION.—“Having traversed all this extremely valuable ground as a preliminary, I am now ready to speak to you about the secondary operation, and then to perform it in your presence. This woman, five years ago, in her first labor, met with the mishap of having her perinæum very badly torn. Her physician, a man of large experience, put on the forceps, and in delivering the head this accident happened, and was allowed to go by unnoticed until too late for the primary operation. I have had the patient thoroughly etherized while I have been talking to you, and put in the lithotomy position. Early yesterday morning she took a full dose of oil, and this morning one grain of opium in order to restrain the bowels from further action. To avoid ether vomiting she has eaten a very light breakfast.

“While the assistants keep the vulva on the stretch I begin by shaving off the hair around the rent, and then passing two fingers into the bowel in order to smooth out the overlying rugous vagina. Next, with a curved pair of scissors, I trim the rectal edges of the rent, and snip off from its vaginal surface a thin paring of mucous membrane. This trimming is continued for an inch and a half up the posterior wall of the vagina, and then the sides of the perineal rent are denuded for a space a little broader and longer than the cicatrix of the original perinæum. On account of the vascularity of these parts and the valveless veins I prefer the half-crushing action of the scissors to the clean cut of the knife. Close to the lower edge of the raw surface two small arteries are spouting little streams of blood, but I shall not tie them lest the ligatures should act as foreign bodies and prevent union. By nipping each with a *serrefine* I stay the bleeding. These little clip-springs will be found to be of great service in this operation. I have nipped the skin off both sides, and the wound is now ready to be closed, but before doing so let me carefully sponge

every part of the bleeding surface to see whether any portion of mucous membrane or of skin has escaped the scissors. I see that all the little ridges of mucous membrane have been snipped off, and now I am ready to pass in the sutures.

“A sharply-curved needle held in the jaws of a needle-holder, and armed with silver wire (to avoid the constant threading of the needle with the wire I have passed a fine silk thread through the eye of the needle, and tied a half knot in it. In making my stitches I pass the end of the wire through the loop of the thread, and simply bend it over), is entered nearly half an inch below the lower angle of the wound in the left buttock on a level with the lower margin of the anus. By my finger in the rectum I pilot this needle through the recto-vaginal septum, so that by one sweep it completely girds the rectal rent and emerges at a corresponding point of the skin on the right buttock. This suture was first devised by Dr. Emmet, and a very important one it is whenever the sphincter ani is torn through or a limited portion of the recto-vaginal septum is involved. In passing let me enjoin upon you this advice: Whatever the degree of laceration, and whatever the nature of the operation, namely, whether primary or secondary, the point of entrance and of exit of the first suture should always be fully half an inch below the lowest angle of the wound. The perinæum proper I shall now close by five other metallic sutures. The cutaneous points of these sutures should be an inch from the margin of the rent, and each suture should pass through the vaginal mucous membrane very close to the edge of the raw surface. After carefully sponging away the blood I pass the ends of the lowest suture through the hole in the handle of the forceps, and, while drawing upon them, firmly push the latter down upon the skin. The adjuster being removed a perforated shot is slipped over the ends of the wire. This is next seized in the jaws of the compressor, and after being firmly pushed home is clamped. Each suture is in like manner secured by a single shot, and the free ends of wire clipped off. Some operators only twist the ends of wire, but I always clamp with shot.

AFTER TREATMENT.—“The operation is now ended, but, before removing our patient to her bed, let me empty her bladder. While withdrawing the catheter I keep my finger closely applied to its mouth so that the few drops of urine retained within it shall not escape and trickle over the wound. I also fold up a soft napkin, put it between her knees, and bind them together. I used to advise the employment of a self-retaining catheter in these cases, but it produced in one instance such a severe attack of cystitis by being allowed to remain in longer than proper that I have never recommended its use since. *So I tell you, in view of this possible accident, never to employ the self-retaining catheter, but to have the water carefully drawn twice or*

thrice daily. This can be done without unbinding the knees, namely, by flexing the knees and thighs upon the abdomen, the woman being upon her back, and so introducing the catheter. Our patient's bowels must be kept locked up. Enough opium to ease the uncomfortable tension of the sutures, say one grain every four to six hours, will be enough. If she is annoyed by painful flatus, which does not yield to teaspoonful doses of the fluid extract of valerian, a flexible catheter should be carefully introduced into the rectum. On the seventh or eighth day I shall cut and remove every suture except the rectal one. On the morning of the ninth day four ounces of warm olive oil will be slowly injected into the rectum, followed two hours later by a soap-water enema. Should hardened feces over-distend the rectum the nurse must break them up either by her finger, a hair-pin, or the handle of a spoon. When the medicine has operated I will remove the last suture.

"After the bowels have been thoroughly opened they should be again locked up for four or five days more, and then be daily kept open by a mild aperient. The patient should have her knees bound together, and stay in bed for at least two weeks, and for a week longer should not go out of her room. During this latter time she should walk about but little, and keep her knees close together. Should a fistulous opening remain, fuming nitric acid should be applied and the sides should be coaptated with sutures."

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TO SUBSCRIBERS.

Accounts have been rendered to all; will they have the kindness to remit the amount due.

In our last number we chronicled as faithfully as the information at our disposal would allow, the various steps which had been taken by the University of Laval and its friends, toward the establishment of a Branch Medical Faculty in Montreal. Absolute accuracy we of course did not claim, but now that a month has passed away, having in its passage brought us much additional information, we are enabled to state that our article in the November number gave, in all its principal details, a true statement of facts. Then the Branch Faculty of Laval was to be composed principally of new men—

only some two or three members of the Faculty of Victoria College having been asked to accept chairs. The determination, however, of those left out in the cold to hold on to their charter and to their affiliation, and to continue as heretofore, with their united opposition to a nine months' course, has most completely changed the position of matters. As we write we are informed that those who almost felt the dignity of the professorial title resting on their shoulders are doomed to disappointment, for they have been quietly dropped, and the Faculty of Victoria College have in a body been transferred to and accepted by Laval University as their Medical Faculty in Montreal. All this is simply to us a matter of Medical news, and as such we give it to our readers. But we cannot help remarking that, considering the reiterated assurances that the Montreal School of Medicine have during the last five months made to Victoria College, that they had no intention of changing their allegiance, their action does seem somewhat singular. As medical Journalists our greatest interest, however, is in the question of the recently threatened attempt at changing the law, compelling a nine months course to be given instead of six, as it has been for a great number of years and is at present. We are, as we have already said, opposed to this. Opposed to it primarily because the country does not demand any such change as expressed through the profession generally or through those engaged in medical teaching. And, secondly, because while those who advocate this change claim that their object is to benefit the student and elevate the standard of medical education, it requires no second sight to say that, while they may try to make themselves believe that such is the case, there are not many who will give them this credit. And why not? Simply because their previous acts do not tend to corroborate this view. Some of them were members of the committee named by the Committee of the House to frame the present Medical Act, and on that committee not one word was said about extending the course to nine months, although Laval University had for years, (we believe since its establishment,) given in its Faculty of Medicine what it calls a nine months course, or three terms of three months each. Surely since that period, one year ago, medical science has not made such gigantic strides as to have overgrown the possibility of compressing it within the six months, nor has there been any noted change elsewhere in the same direction which would make it seem meet for us to follow. On the contrary, Great Britain and Ireland still

give in her Universities six months medical courses; and so it is in every University of the British Dominions save Laval, and she has always been exceptional. If then the law has demanded courses of six months for many years, wherefore the call for the change now? Simply because Laval, being about to extend herself to Montreal, by opening a branch, feels herself in a dilemma. Giving a longer term, although no more lectures than the law requires in Quebec, *ergo*, she must give the same course in Montreal; and to at once meet the threats of those who say, (as many have said) they will not attend a nine months course, she seeks to change the law so as to compel all to give a course similar to her own. If this is not a special piece of legislation in favor of one University, we confess, we never heard of special legislation. Not alone would this legislation be in favor of one University, but it would be to the very great detriment of the two other Universities of this province. Other reasons might be advanced against any alteration of the law with reference to the length of the College term, but we hope that those who have been moving in the matter will see the wisdom of allowing the law to remain as it is. No harm can possibly come to Laval by her making her course in Quebec comply with the existing law, while an extension of the course to nine months, as has been proposed, would be so ruinous to Montreal, as the centre to which the English-speaking youth of the Dominion would come to obtain their Medical education, that any such attempt is sure to bring about a storm that might be difficult to manage. We sincerely hope better counsel will prevail, and that the new Faculty of Laval, *née* the old Faculty of Victoria, will be as firm in their opposition to the nine months course in their new position as the majority were in the old. If so, we have good hopes that the storm, which has lulled, will pass away, and that once more peace and quietness will reign supreme over the Quebec Medico-Political horizon, which has been anything but clear since the meeting at Three Rivers in July last.

ANTISEPTIC DRESSING.

At a recent meeting of the Medico-Chirurgical Society of this city, Dr. Roddick read a paper illustrative of the "Antiseptic System of Lister," from which we gleaned the following facts in connection with that method of treating wounds. In the first place, Dr. Roddick spoke of the difficulties that lay in the way of the thorough application of the sys-

tem,—namely, its cost, the time expended in applying the dressings, the attention to the minutiae required, and the trouble there sometimes existed in imparting the necessary enthusiasm to those on whom the care of the cases devolved. He frankly admitted that he had failed on one or two occasions, but had always succeeded in tracing the failure to some cause outside of the system.

Professor Lister is in the habit of using the four following disinfectants:—Carbolic acid, salicylic acid, chloride of zinc, and boracic acid. The first is found the most efficient antiseptic for general purposes, being employed in conjunction with resin and paraffine in the preparation of the antiseptic gauze, and in watery solution of varying strength. The gauze spoken of is applied in dressings of eight layers, the size of the dressing depending on the amount of discharge expected. Between the seventh and last layer a piece of Mackintosh cloth is interposed to prevent the discharge from soaking through the dressing and causing a direct communication between the wound and putrefactive organisms on the outside. The "antiseptic atmosphere" on which Professor Lister lays so much stress is provided for by a steam-spray producer of the most approved pattern, and which Dr. Roddick brought with him from Edinburgh. This consists of a boiler containing water, with a safety valve attached, and fitted with a most ingenious lamp arrangement, so that the heat can be shut off or on at pleasure without extinguishing the flame. A bottle, containing a 1-20 carbolic watery solution, is adapted to the boiler, giving a spray of the strength of 1-40, which has been found by Mr. Lister to be of sufficient strength to destroy organic germs. In the form of one to twenty solution carbolic acid is employed to purify instruments and sponges, and the integument of the part to be operated on. The hands of the operator and his assistants should be thoroughly cleansed in a one to forty solution. The "protection," consisting of oil silk properly prepared, and which is recommended to be applied to the wound to protect it from the too irritating action of the acid, is also dipped in this solution. One of the essential elements of the method is thorough drainage by means of Chas-saignac's tubing, of which Mr. Lister uses several sizes, depending on the extent of the wound, or, rather, on the amount of discharge to be withdrawn. This is perforated with large openings, and armed with a loop of silk thread or a double wire, so that its mouth may be held outside of the wound.

Of the other antiseptics employed by Mr. Lister,

the chloride of zinc is that most valued by him. He uses it in a watery solution containing forty grains to the ounce, and finds it especially of service in the cleansing of sinuses and foul ulcers. He also uses it in operations about the anus and mouth, where the ordinary dressing cannot be conveniently applied. Salicylic acid is inferior as a destroyer of bacteria to both carbolic acid and chloride of zinc, but is of eminent service where the patient has a very irritable skin, or where a wound is being too actively stimulated. It is best used in the form of "cream," which is made by mixing salicylic acid by trituration with one to forty solution of carbolic acid until you obtain a fluid of a creamy consistence. Boracic, or boric acid, has the advantage also of being very unirritating, and is chiefly recommended by Mr. Lister in the treatment of ulcers. It is used either in the form of a saturated watery solution, or as boric lint, made by steeping ordinary lint in a boiling saturated solution of boracic acid and allowing it to dry. When properly made, crystals of the acid adhere to the threads of the lint, so that by simply dipping the latter in water you get at any time a dressing of boric acid.

The cases recorded by Dr. Roddick, and which were embodied in his paper, were two very severe accidents requiring amputation, and certainly the results in both cases were most gratifying. One was Cardens amputation, following a railway accident, in a young lad of seventeen, in which the stump was healed on the eighth day without a drop of pus or elevation of temperature. The other was an old man of sixty-five, whose foot was amputated above the maleoli, and on the tenth day all dressings were removed, the stump having entirely healed, also without suppuration or elevation of temperature. With such results as these and many others of which we are cognizant, it is easily understood how Mr. Lister and his supporters can afford to treat with that contempt which is their due, those who endeavor to belittle his system. After all, who are the scoffers? They will be found to be those who are either too indifferent to give it a trial, or, worse, those who have tried the method but in such an incomplete manner as to ensure its unsuccess. The latter are Lister's worst and most determined enemies, and we can only hope, for the sake of fair play, that none of our readers sail in their boat.

WYETH'S DIALYSED IRON.

This preparation has now been in use some six

months among the profession in Montreal, and we are stating, we think, not only our individual opinion, but that of every one who has made use of it, when we say, that we regard it as one of the most important of the many additions to our *Medica* which have been made during the past few years. The very extensive use to which the various ferruginous preparations are put has been the means of giving to this new remedy a prompt and very general trial, and it is something more than usual, to be able to say, that, in every respect, it has borne out the peculiar advantages which it is said to possess. Those advantages may be enumerated under the following heads: 1st. It is easily administered, the dose being small. 2nd. It has no unpleasant taste or smell. 3rd. It does not irritate the stomach. 4th. It has no effect on the bowels, producing neither constipation nor diarrhœa. 5th. It does not blacken the teeth. The value which these peculiar characteristics imparts to it over the other ferruginous preparations must of course be evident to every one who gives it a moment's consideration.

According to a circular recently issued by Messrs. John Wyeth & Bro., of Philadelphia, we are informed that, in the manufacture of Dialysed Iron, they avail themselves of two known principles. The first is connected with the remarkable property possessed by the chlorides in general of combining with the oxides to form oxychlorides, which are usually soluble, and in which the proportion of oxide is very large. As regards iron, particularly, one equivalent of its perchloride may, under suitable conditions, combine with thirty or more of the oxide, giving a soluble oxychloride, the formula of which would be $Fe_2 Cl_6 Fe_2 O_3$. To get rid of the hydrochloric acid, and obviate the usual inconveniences of ferruginous preparations, they take advantage of the second principle—that of the unequal diffusibility of hydrochloric acid and peroxide of iron, the latter belonging to the class of colloid bodies; and, by means of the dialyser, they completely separate this hydrochloric acid; so that, as a final result, they have the thirty equivalents of soluble peroxide of iron contained in a very small volume of water. When this operation has been conducted with care, the Dialysed Iron obtained is simply a neutral concentrated solution of the oxychloride of iron (ferric oxychloride, $Fe''' Cl 23 Fe''' O$) holding in combination the higher oxide of iron (ferric oxide or sesquichloride). It does not contain a particle of ferric hydrate, as some have affirmed. Its chemical

arrangement is probably best expressed by the formula $Fe_2 Cl_6 23 Fe_2''' O_3$. It should be added, however, that chemists, as yet, are not fully agreed as to the exact formula. Each fluid ounce of the solution contains twenty-four grains of iron.

Dialysed Iron is a permanent, neutral, inodorous liquid, of a deep red color, but transparent in thin layers. It has none of the styptic taste so common and disagreeable in ferruginous preparations. The solution should not be allowed to freeze, as this has the effect of thickening it. But if, by evaporation, freezing, or otherwise, it becomes too thick or gelatinous, the addition of a few drops of *distilled* water will bring the solution to the proper consistence; but water containing salts precipitates with it. With arsenical salts, Dialysed Iron acts with great rapidity—even more quickly than the freshest preparation of the precipitated oxide of iron, which has heretofore been held to be the surest antidote for arsenical poisons introduced into the stomach.

Dialysed Iron may be administered for months together for all the purposes for which ferruginous preparations are usually exhibited. Becquerel says of it—and his observations are confirmed by physicians of eminence everywhere—that “it produces neither heartburn, diarrhoea, constipation, eructations, nor, in short, any gastric disturbance; and, which is a matter of much importance, it *never blackens the teeth.*” It is especially in anæmia, chlorosis, palpitations, chronic diarrœa, gastralgia, dysmenorrhœa, etc., etc., that its use is indicated.

But its *specific* virtæ is as an antidote for poisoning by arsenic. Dr. H. C. Wood, in the *Philadelphia Medical Times*, July 21, 1877, says, “Judging from its behavior in the test tube, it is even a better antidote to the poison than is the freshest precipitated oxide. Experiments upon animals are, however, necessary before a final judgment can be reached upon this point.” When Dialysed Iron is taken into the stomach, gelatinous ferric hydrate is produced. It also possesses the great advantage of being always ready for immediate use, and, possessing the virtues of iron in general, will hereafter be found in every drug store and in the saddle-bags of every country physician.

The dose of Dialysed Iron, for tonic purposes, is from five to twenty drops four or five times daily. It may be taken, however, without inconvenience in doses several times larger than those stated, but to no advantage, as only a certain amount can be absorbed into the system.

Dialysed Iron is best administered by itself upon

sugar, or mixed with some simple syrup which is free from an acid, as an acid admixture converts the preparation into a salt of iron. It may also be conveniently given in wine, or in coffee, etc.

We can, as we have always stated, commend this preparation from considerable actual experience of its use. See advertisement on page facing last page of reading matter.

Retarded Dilatation of the Os Uteri in Labor.
By ALBERT H. SMITH, M.D., Philadelphia.

This little brochure was offered to the Medical Society in the form of two papers during the month of August 1877.

The first paper discusses “Delays arising from conditions of the cervix,” “usually included under the general name of rigidity of the os uteri.” This rigidity is treated as either *active* or *passive*. The active form is well discussed and affords a good summary of the treatment generally adopted for the relief of this form of delay. There is, however, a statement in regard to the manner in which the dilatation of the os is effected previous to the rupture of the membranes. It is a well known fact that the head of the child recedes from the os at the commencement of each pain and is not “driven against” it as stated by the author. The paramount value of opium is insisted upon, but the importance of determining whether such labor is premature or not is overlooked. The investigation of the foundation cause, viz., an immature condition of the decidua, is not even mentioned. When the labour is even a few days before time the opium will often enable the patient to reach her full term and have an easy accouchment. The forcible dilation of the os should never be resorted to unless the uterine pains cannot be controlled or labour has to be promoted for urgent reasons. In such cases the writer well insists upon the danger of incisions of the os, and the advantages of a properly constructed forceps, for both dilatation and extraction.

The author is not so happy in his remarks concerning the “forcing open of the os by traction with the finger upon the anterior lip.” The dangers of laceration are quite as great whether produced by the finger or sponge tents. Such efforts are useless for the purpose spoken of, and can only irritate the lip and render future dilatation more tedious. It also

renders the lip more apt to be caught between the head and brim of the pelvis. The author overlooks those cases where the os is prevented from dilating on account of adhesions between the decidua and uterine walls around the inner os. If labor is actually begun, early rupture of the membranes hastens dilatation and expedites delivery. With regard to obliteration of the os uteri, the author does well to insist upon caution and delay before resorting to incision.

The second paper deals with "delays connected with contraction of the uterine body and also those resulting from faulty relations of the presenting mass with the pelvic strait. One class of cases of inertia are spoken of as those where "the contraction is vigorous and causing suffering, recurring regularly with feeble expulsive effect but the os uteri does not dilate." This description corresponds to what is met with in cases of irregular uterine contractions due to adhesions between the muscular wall of the organ and the decidua. Uterine rest is as valuable here as in any case, and therefore opium should be resorted to before either rupturing the membranes, resorting to "hot toddy, or milk punch." This last quotation we do not think is good advice, and should not be resorted to, except where stimulants are indicated. The author speaks of the great value of bi-sulphate of quinine as a uterine tonic, and his experience of its value should induce a trial of its virtue by the profession.

In extraction with the long forceps (and of these instruments Hodge's is by far the best) the author very properly insists upon traction being made in the axis of the brim where the head is placed. This desirable result is obtained by "exerting the force upon the lock of the instrument." "Pressure is to be made with the palm of the left hand upon the lock, or, in some forceps, even upon a portion nearer to the head than the lock, that pressure being directed in a line as nearly as possible, not parallel with but identical with the line of the pelvic axis at that point where the head may be." The production is worthy of a careful perusal, and we can cordially commend it to our confreres. It is to be had of Messrs. Dawson Bros., Montreal.

MEDICO-CHIRURGICAL SOCIETY.

MONTREAL, DEC. 14th, 1877.

The regular fortnightly meeting of the Medico-Chirurgical Society of Montreal was held in the

Library of the Natural History Society this evening. The President, Dr. Francis W. Campbell, was in the chair. There were present: Drs. Ross, Blackader, Edwards, Buller, Parks, Nelson, Osler, Reddy, Kollmyer, Loverin, James Bell, Alloway, Roddick, Richard MacDonnell.

The minutes of the previous meeting were read and approved.

Dr. OSLER exhibited the following pathological specimens:

I. A lung completely excavated, the result of chronic phthisis. Lung tissue was present only at the root. In the same body, that of a girl of nineteen, tubercle of an early stage was found in the intestines, and in the fallopian tubes. This last condition, Dr. Osler explained, was a rare occurrence without co-existent deposit in the peritoneum.

II. Ulcerative colitis. The case had presented the appearances of a general enteritis. Innumerable ulcers were present over the whole colon. Many of these had eaten their way down to the peritoneum, so that, without tearing, it could not be detached. There were, however, many points of ante-mortem perforation. In the same patient there was extensive deposit of carbon particles in the lungs.

III. A pedunculated polypus of the uterus, springing from the fundus and appearing in the vagina. In the same body there was a chronic abscess in the broad ligament which had burst into the bladder, and had given rise to pus in the urine. The liver was large (wt. 6 lbs.), and there were numerous stones in the gall bladder, one of these occluding the duct.

Dr. Ross stated that the patient from whom these last specimens had been procured was given into his care a few days before her death. She was thirty-five years of age, sallow and anæmic in appearance. The symptoms were mainly septicæmic. She suffered from chills and high fever; had a rapid pulse and a coated tongue, and was extremely feeble and exhausted. For the last two years there had been excessive menorrhagia. A digital examination of the uterus was made. The finger could be freely passed around the tumour, and it felt like the cervix itself. Dr. Ross fancied that it was malignant. The appearance of pus in the urine failed to mislead him. From the absence of any symptoms pointing to the kidney he could exclude renal disease. The hepatic enlargement produced no symptoms. There was no syphilitic history.

Dr. BLACKADER read a paper on "some of the terminations of pleurisy." He stated that, as yet, the sequelæ of pleurisy had not received the attention they deserved. Pleurisy more frequently precedes phthisis than is generally supposed. The sequelæ may be divided into three classes.

I. Those arising merely from mechanical compression.

II. Those arising from new growths in the pleura.

III. Those arising from purulent absorption.

The effects of the mechanical compression exerted on the lung by bands of adhesion are more serious than is generally supposed. Mere bands cause slight

interference with respiratory action, but may give rise to compensatory emphysema. A case was cited where pleurisy which had occurred ten years before was said to prevent the proper expansion of the air cells in the upper part of the lung. Bronchitis with emphysema was the result.

Adhesions over the whole pleural surface do most injury by giving extra work to the sound lung. The history of two cases was read. In one of these, fibroid changes, the result of an old pleurisy, had been found after death. In the other, this condition of lung was strongly suspected. Chronic pleurisy so commonly gives rise to hectic fever, amyloid disease of the viscera, phthisis, etc., that Dr. Blackader did not dwell to any extent on this part of the question, inasmuch as these sequelæ were familiar to every member present.

Dr. OSLER having complimented Dr. Blackader on his having read such an excellent paper, stated that pleuritic bands were so common that it was a rare thing to find a body without them, and mentioned a case in support of the view taken by Dr. Blackader, that fibrosis of the lung was due to extension inwards of fibrous bands.

Dr. ROSS said that the influence pleuritic attacks exerted upon future diseases was a matter often overlooked. He mentioned a case of acute tuberculosis following empyema. In this case there was also caries of the bones of the ears, which gave rise to troublesome brain symptoms.

The PRESIDENT (Dr. F. W. Campbell) was of opinion that pleuritic adhesions were unusually common in Canada, and attributed it to sudden changes in the weather. In the examination of candidates for life insurance he was struck with the large number of persons coming to him with flatness of one side of the chest and a variable degree of dullness, traceable to pre-existent pleurisy.

A vote of thanks to the reader of the paper was moved by Dr. OSLER and seconded by Dr. REDDY.

Dr. NELSON wished to obtain information with regard to the treatment of phthisis by blood drinking. Some time ago he advised a patient to drink blood. After taking about one half or one third of a teacupful she became quite giddy, and acted exactly like a drunken person. This state lasted some little time and then passed off. She continued the treatment for some weeks, the dose was diminished, but the same effect was always produced. There was great improvement in the phthisical symptoms.

The PRESIDENT (Dr. F. W. Campbell) had made use of this treatment in three cases. Great improvement followed. He had never seen such effects produced as those described by Dr. Nelson. He then related the particulars of the death of Dr. W. P. Smith, the oldest English practitioner in Montreal. Death was extremely sudden, and was thought to be due to cardiac syncope. He concluded his remarks by giving the history of a case of membranous croup in his practice in which tracheotomy had been performed by Dr. Drake. The child lived until the second day after the operation. On the morning of its death a patch of false membrane as large as a sixpence

appeared on its lower lip. There was no false membrane on the throat. Two other children in the same house had false membranes appear in the pharynx simultaneously with its appearance on the lip of the child operated upon. They had previously been under treatment for severe sore throat, but no false membrane was discoverable, although looked for by Dr. Drake and himself. He was following the treatment suggested by Dr. Bell of Glasgow, and with every prospect of a successful result, as both little patients were doing well. He had used this treatment in several severe cases of diphtheria, and felt that good results in several was undoubtedly attributable to the treatment.

The Meeting then adjourned.

RICHARD MACDONNELL, B.A., M.D.,
Secretary.

SCRIBNER'S MONTHLY AND THE ST. NICHOLAS.

By special arrangements with the publishers, we are enabled to offer to our subscribers *Scribner's Monthly*, one of the very best monthly magazines published in America, at the extraordinary low rate of two dollars a year, the subscription price being \$4.00 a year. We can with confidence recommend this magazine. Any subscribers desiring it will please forward their names and the amount of subscription. The *St. Nicholas*, a monthly magazine issued by the same firm, and more particularly intended for the younger members of society, and publish at \$3.00 a year, we are also able to offer at the greatly reduced rate of \$1.50 a year. It is a first-class juvenile magazine, profusely illustrated, and has obtained an enormous circulation.

BRANT COUNTY MEDICAL ASSOCIATION.

At the regular quarterly meeting of this Association held in the Kerby House, Brantford, Sept. 4th, the following gentlemen were elected officers for the ensuing year: Dr. Philip, President; Dr. Burt, Vice-President; Dr. Harris, Secretary-Treasurer.

Efforts are making in Russia to abolish the law which obliges a physician to visit any one who may call on him. As it now stands, he who refuses to go is liable to a fine of from five to ten roubles for the first offence, of from ten to fifteen for the second, and of from fifty to one hundred for the third. Moreover, any physician so offending, who may be in the service of the government, is liable to be dismissed. The worst of it is that the law is no dead letter, but is actually enforced. In 1869 a similar law was repealed in Prussia.

PERSONAL.

Horace P. Yeomans, of the Village of Mount Forest, Esquire, M.D., to be an Associate Coroner in and for the County of Wellington.

Thomas Smith Walton, of the Village of Parry Sound, Esquire, M.D., to be an Associate Coroner in and for the District of Parry Sound.

Dr. G. S. Ryerson, of Trinity Medical School, has been appointed house surgeon of the Royal London Ophthalmic Hospital, Moorfields. He is also clinical assistant at the Central London Throat and Ear Hospital, Gray's Inn Road.

—Dr. Alfred S Taylor has resigned the office of Lecturer on Medical Jurisprudence and Toxicology in Guy's Hospital. This appointment was conferred on him by the treasurer and governors of the hospital in March, 1831. He has, therefore, held it continuously for the long period of forty-six years. Dr. Taylor held, also, the office of Lecturer on Chemistry, from 1832 to 1870, a period of thirty-eight years.

DOMESTIC INTELLIGENCE.

A private Medical Home for Opium Habitues.—Parrish Hall, Brooklyn, N. Y., which has just been opened, offers to those of either sex, who may desire to avail themselves of its advantages, an asylum for the treatment of the disorder to which it is *exclusively* devoted. It is beautifully situated in a suburb of Brooklyn, and it is intended to make it an attractive home for its inmates.

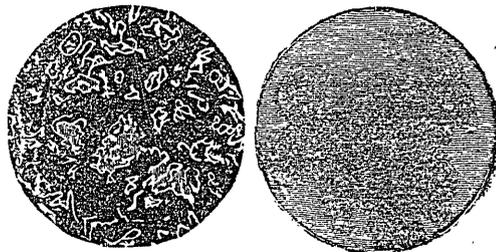
Milk of Magnesia, by Charles H. Phillips, Chemist, New York.

As I believe that Physicians need only to be made acquainted with the merits of Milk of Magnesia to accord it their professional sanction, I invite their attention to its advantages.

It is the only perfect hydrate, or complete combination of Magnesia and water, by a new and improved process, and is not, as many suppose, calcined Magnesia triturated and suspended by a mucilaginous or other auxiliary body. Microscopic examination of it, when mixed with distilled water, discloses a uniform cloudiness, but no separate particles of the alkali. Being a hydrate, it is far more efficacious than the calcined and carbonated preparations of Magnesia, which are insoluble, since the hydrate form is that in which combinations are most readily effected in the stomach. In illustration, take the action of the Hydrated Sesqui-Oxide of Iron, the antidote to Arsenic, which it decomposes and then unites with, as Arseniate of Iron. The Lactate of Lime, the Phosphates and other hydrates, exemplify the above fact. It is claimed that the Milk of Magnesia combines with and neutralizes the Lactic, Lithic, and

Uric Acids, which are generally admitted to be the exciting causes of Gout, Rheumatism and Gravel. It is, moreover, susceptible of the most perfect homoeopathic distribution, since a single drop amalgamates completely with a tumblerful or more of water.

The use of Milk of Magnesia is free from the risk attending that of the undissolved Magnesias, which form hurtful concretions in the stomach and bowels—a fact which renders them peculiarly unsuitable to the delicate infant organism. The perfect smoothness and milk-like taste of this Magnesia, on the contrary, make it the best of all Antacids, and, whether used for children or adults, physicians who test it will find that this hydrate possesses all the medicinal properties of Magnesia in a much higher degree than the calcined and carbonated preparations of that important alkali, without any of the above objections.



The above is an exact representation of the several calcined and carbonate of Magnesias of the best manufacture and repute, both English and American, hitherto sold by druggists, compared with Milk of Magnesia. These samples have been in so-called solution (20 grains to the ounce) over fifteen months up to the time of writing. The cuts exhibit the fractional part of a single drop magnified 250 diameters; and we would call attention to their appearance, showing the undissolved precipitates and particles with terrible distinctness, and then desire a comparison with the Milk of Magnesia preparation, which is also given, similarly magnified, and which shows the Magnesia, like a mist or vapor, perfectly free from the objectionable precipitates, and *entirely dissolved*.

Thus, in calling the attention of the profession to the Milk of Magnesia, I present it with an entirely new therapeutic agent, which both Physicians and Pharmacists will readily appreciate.

Milk of Magnesia is sold in 8 and 20 ounce bottles; the latter size will be found very convenient for dispensing. It is compatible with all compounds and preparations in which the ordinary Magnesias have hitherto been used.

Physicians wishing to try the Milk of Magnesia can obtain a supply from Devins & Bolton, Montreal.

BIRTHS.

In Toronto, on the 8th Sep., the wife of Dr. J. H. Burns of a son.

MARRIAGES.

In Montreal, on the 3rd inst., at St. George's Church, by the Very Rev. Dean Bond, Kennet W. Blackwell, of Belleville, to Fanny Coates, youngest daughter of R. T. Godfrey, M.D.

DEATH.

In Montreal, on the 13th December, W. P. Smith, M.D. the oldest English practitioner in Montreal.