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CANADA

# MEDICAL & SURGICAL JOURNAL

**JULY, 1881.**

## Original Communications.

## AN ADDRESS UPON THE USE AND ABUSE OF ALCOHOLIC DRINKS.

By WILLIAM BAYARD, M.D., &c., EDIN.,
President of the New Brunswick Medical Society.

[*Read before the New Brunswick Medical Society.*]

GENTLEMEN,—I know of no subject in the present day of such paramount importance to the well-being of mankind as an accurate knowledge of the "*use and abuse of alcoholic drinks*," embracing as it does, its medical, its moral, its political and its social aspects. Our professional education and experience, teaches us the physiological action of alcoholic liquors upon the human frame, when they should be abstained from, and when they could be taken with advantage; and our professional experience too often teaches us the baneful effects morally and physically upon the individual who indulges in the use of them to excess. While the justice is daily and hourly brought face to face with the "moral evil," the physician is as often called upon to combat the inroads upon the constitution produced by the abuse of them. That the evil is the greatest one of the age and that it calls loudly for a remedy cannot for a moment be denied.

Laudable efforts have been made and are being daily renewed by philanthropists to stay the progress of intemperance with its attendant consequences, disease, insanity, crime and poverty. Societies have been formed, laws enacted, and persuasive and

coercive measures adopted. Yet, reliable statistics prove that the evil continues to increase with the increase of population. The statesman requires the aid of all enlightened minds to assist him in framing such laws as will meet the difficulty. And the people at large require to be taught that the abuse, and oftentimes the continued use of alcoholic liquors leads to results dreadful to contemplate. They must be made to believe that they are swallowing a poison, which, if taken at improper times and in improper quantities will, sooner or later inevitably create disease of body and mind. And who can educate them so well upon these points as the physician ? and, gentlemen, let me add, I think it our duty as custodians of public health, and as well-wishers of our race, by precept and example, to exercise that influence which each and every one of us can command towards this end.

With the confirmed inebriate we can do little, argument is useless where the entreaties and tears of fond wife, parents, brothers and sisters are of no avail ; the finer qualities of his nature are destroyed, the terrible craving for stimulants has taken the place of his will, and he pursues his course to degradation and death, regardless of consequences. Restraint is the only remedy for him, and when that restraint is enforced for a suitable period, it is often surprising to witness the recovery of body and mind under it. But the difficulties surrounding the general application of it, are such as have puzzled the minds of the most astute statesmen and philanthropists, yet it is to be hoped that some means may be devised for carrying it out. But we can and should exercise an influence over the minds of the " masses " who believe that alcoholic stimulus in some of its forms, is generally beneficial to the human system and a necessary aid in promoting health and vigor of body and mind, and in resisting the extremes of cold and heat and other depressing agencies. They should be taught that these ideas are fallacious, that the human system can alone be supported in health by food, that alcohol is not a food in the ordinary acceptation of the term, that no tissue of the body can be built up by it, that with other articles of diet, a dangerous craving is created by the con-

tinued and unseasonable use of it, that while in moderate quantity it produces an exhilarating effect upon the mind, this exhilaration is certainly followed by a corresponding depression, that while it imparts a temporary strength to the muscular power, that power cannot be sustained under its continued use, that the primary effect of it upon the circulation is to produce a glow of warmth upon the skin, which is of short duration and leaves the body colder, that it does not support the system under the enervating influence of extreme heat, that he who will indulge in the use of it should *never* do so in health upon an empty stomach, and that every organ of the body suffers more or less from the excessive use of it.

It may be asked what is the effect of alcohol, the base of all intoxicating liquors, upon the tissues of the stomach? We may answer that, in a concentrated form, a chemical action takes place. That in consequence of its strong affinity for water, it seizes that fluid contained in the tissue, producing a coagulation and rendering it hard and dense, and destroying for a time the absorbing power of that organ, which will only be renewed when the alcohol becomes sufficiently diluted with the water in the tissue. It may be observed that pure brandy, which usually contains equal parts of alcohol and water, is sufficiently strong to produce this coagulation, therefore it must combine with some of the water of the tissue before it can be carried into the circulation. That when *diluted*, it is absorbed into the ciculation with marvelous rapidity, as proved by the experiments of Dr. Percy, who found that when death took place in two minutes after it was injected into the stomach of the animal, that organ was found almost void of it, while it was found in the blood and in considerable quantity, in the substance of the brain. It appears to seek out and fasten itself upon the nervous matter, affecting in the first stage of intoxication, the intellectual faculties through the *cerebrum*. In the second stage, a disturbed function of the *sensory ganglia*, as indicated by a want of that control over those muscular movements which are guided by sensation. And in the third stage, when the functions of the *cerebrum* and *sensory ganglia* are suspended, those of the

*medulla oblongata* and *spinal cord* now begin to be affected, as shewn by the difficulty of respiration, strabismus, dilated pupils and tetanic spasms. Richardson tells us that the action of alcohol upon the red globules of the blood is to extract the water from them, thereby reducing their size and altering their shape. He further says, "I found by experiment, that in presence of alcohol in the blood, the process of absorption of oxygen was directly checked and that even so minute a quantity as one part of alcohol in five hundred of blood proved an obstacle to the perfect reception of oxygen by the blood. Hence we may expect the blood to assume a venous character under its influence. The poisonous effect of alcohol upon the blood and nervous matter, is antagonized by the efforts made by the system to get rid of it. Recent observations go to show that it is partly eliminated by the lungs, skin, bowels and kidneys. But the amount thus eliminated is so small that it does not account for all that disappears. Carpenter thinks that a combustive process takes place in the blood, at the expense of the oxygen it contains, converting it into carbonic acid and water, while the experiments of E. Smith and others go to show that there is no increase of carbonic acid produced. And Anstie and Thudicum contend that it is consumed in some way in the economy, though how they do not say. Acknowledging that alcohol is consumed in the system, it cannot be classed as a tissue producing food. It does not supply those substances which go to build up the various parts of the body. But the evidence before us, is, I think conclusive, that when taken in proper quantities and under proper circumstances, it diminishes or arrests the waste of the tissues and probably in some way supplies the place of deficient aliment.

It is urged by Beale, Binz, &c. that alcohol possesses the property of restraining the rapid growth of young cells, and like quinine of checking the multiplication of the white corpuscles of the blood. The muscular system when performing the movements of the body, obeys the will through the nervous system. For the due maintenance of their respective powers, both systems require *materials of growth and regeneration*, which can only

be obtained from blood charged with oxygen and purified in the course of its circulation through the body, and this blood can alone be obtained from food, alcohol containing none of the constituents necessary for its production. It is quite true that the *stimulating* effect of alcohol upon the nervous system, increases the nervo-muscular power, which may be forced for a time beyond its natural limit, but cannot be sustained without rest and a renewed blood supply, which, as already stated, cannot be produced by alcohol. Its action upon the muscular power of the heart is such as to increase the beats of that organ in proportion to the quantity taken. According to Richardson the man who swallows 8 ounces of alcohol in 24 hours, increases the number of beats of his heart from 100,000 to 124,045 during that period. Hence we can readily understand the exhaustion consequent upon such increased action. The brain being the instrument by which all mental power is exercised, requires for the proper performance of its functions, the healthy nutrition of the nervous system, and a due supply of oxygenated and depurated blood, neither of which can be afforded by the alcohol. Yet it must be conceded that the first effect of an alcoholic stimulus is to produce a *temporary* excitation of mental activity. The individual under the influence of it feels an exhilaration of spirits, a sense of gayety, is pleased with himself and others, his ideas flow rapidly, and he pours forth his thoughts with force of expression and richness of conception. But like the candle burning brilliantly in an atmosphere of oxygen soon burns itself out. So the over stimulated brain becomes exhausted, and demands rest, upon the well known principal that undue mental excitement from any cause, is invariably followed by depression and languor. The general warmth experienced for a time when a glass of spirits is taken on a cold day, is the cause of the prevalent belief that alcoholic liquors possess the property of enabling the body to resist the depresssing influencs of extreme cold. Animal heat is maintained by the combination of the carbon and hydrogen contained in certain materials in the blood, with the oxygen taken in by the lungs. Fats and sugars in the blood yield the carbon and hydrogen, and while

alcohol furnishes the same elements for combustion, it is not certain that it plays the same part in the body and cannot be correctly ranked as fuel-food, as has been amply proved by experiment and by the observation of Arctic travellers. The first effects of alcohol being to increase the force and rapidity of the circulation to the extent named, we may naturally conclude that the capillary vessels become gorged, and the blood thus driven to the surface is cooled more rapidly by the outer air, so its secondary effect takes place and the temperature is lowered.

It is now universally acknowledged by those who are called upon to sustain continued bodily exertion under a high temperature, that the work can be better accomplished without alcoholic stimulants than with them, and our physiological knowledge corroborates this experience. The remark is often made that the world would be better without alcoholic drinks than with them; that the evil counterbalances any good that may be derived from them. The answer to this is that every nation has its stimulant of some kind; that kind Providence has permitted the *use* of them, and if they are abused evil consequences follow. It is quite true that a fascination surrounds the use of them that does not follow the use of other substances equally dangerous.

A certain amount of self-control is implanted in the mind of every individual; he knows that danger attends many of his daily acts; he commits the act and avoids the danger. So with the use of alcoholic drinks,—the danger lies *not in the use* of the them, but in the improper use of them. His daily experience teaches him that many, very many, become victims to the *abuse*. He thinks he possesses sufficient self-control to avoid the danger, and so he does up to a certain period; but let him continue to indulge at *improper times* and *in improper quantities*, that self-control is lost, and cannot be regained but by continued total abstinence. He cannot say that he will reduce his allowance; one glass will rekindle his appetite, when the fire will continue to burn until disease and death follow. If an individual is so weak-minded, and so much the creature of

impulse and selfish desire, that having experienced the pleasurable effects of intoxicating drinks, he will voluntarily surrender that power of will given him by Providence for his safety, and throw aside the reins of self-government, and let passion run away with him, he is to be pitied, can claim no respect, and is a fit subject for restrictive laws and punishment. He should know that the highest attribute of a well-regulated mind is the power of self-control, and that the act of self-government is *noble* when exercised in the face of "temptation," nothing without it, and he who will not restrain an injurious appetite degrades himself to the level with the brute creation.

We will be asked whether alcoholic drinks are necessary ingredients for the sustenance, well-being and comfort of man. If used, at what times and under what circumstances should they be taken, and in what quantity? And, gentlemen, let me say that, upon the advice we give, depends in a great measure the good we can accomplish. With regard to the first question, we may answer that he who eats well, and sleeps well, does not require alcoholic drinks; that the great majority of persons are better without them; that most of the alcohol consumed is worse than useless, the evils consequent upon its abuse certainly preponderating over the benefits derived from them. But, as I said before, alcoholic drinks have been given to man, and *he will continue to use them.* As well might we attempt to prevent the tide from rising as to prevent the production and consumption of them. Therefore, the efforts of philanthropists should be directed towards the *possible*, not the *impossible.* The fact that alcohol, when taken into the circulation, augments the force and rapidity of the heart's action, increases the excitability of the nervous system, and supplies one of the means of keeping up animal heat, commends it to the physician when other means for obtaining those effects are defective; and our practical experience teaches us that, when administered with caution and discrimination, it is a most valuable remedy in various forms of disease, and one for which no proper substitute has yet been found. As to its mode of action in the cure of disease we cannot speak with certainty. Dr. Burdon Saunderson's

theory seems to be accepted: that in certain diseases the tissues waste, first the fat, then the muscles, and that alcohol prevents their waste at a time when the patient is too weak to take other food. He says that "the cause of the waste of the tissues is that they are used or burnt in the process of respiration; alcohol takes their place, and supports respiration when the stomach is too weak to prepare and assimilate any other food for that purpose." Alcoholic stimulants improve the appetite, assist digestion, and in fevers and other wasting diseases they are indispensable. The practical application of them must be left to the judgment of the physician, no two cases being exactly alike, each differing in constitution, temperament and intensity. But he should always so regulate his dose that mischief may not accrue from over-stimulation. And he should be particularly careful to avoid bringing the system into a habit of dependence upon the stimulus, for it cannot be doubted that over-indulgence has commenced with the therapeutic use of it. Hence, he should be ever on his guard. The exhilarating effect of alcoholic beverages is so universally felt that the use of them has become a "social habit," and one so engrafted upon the human mind that no amount of persuasion or coercion can eradicate it. It must be acknowledged that the social use of them very often leads to abuse. But if we are unable to combat the *use*, let us attack the *abuse;* let us teach those who use them how to do so with comparative safety, and how to avoid the danger.

Those who value good health, and wish to enjoy the effects of alcoholic drinks socially, will naturally ask at what time and in what quantity can they be used with impunity? We may answer that, except in sickness, alcohol in any of its forms, should *never be taken without food*, and preferably at dinner. I wish to impress this precept, as strongly as words can express, upon the minds of all who hear me, believing, as I do, that food is the great antidote to its injurious effects, and that if this rule were adopted we would not see one inebriate for every hundred we see under the present pernicious custom of drinking at all hours of the day and upon an empty stomach. A man meets

a friend, to whom he wishes to "do the civil." He asks him to go and have a drink; the friend is not thirsty, but he wants to be "civil;" he goes; they have their glass; they meet other friends at the shop, who also want to be "civil,"—the result is that many glasses are taken upon an empty stomach that cannot at the time bear one glass. This is not the *use*, it is the *abuse;* and he who so indulges will assuredly, sooner or later, pay the penalty. As to the quantity, it is difficult to lay down any rule: that which would be enough for one would be too much for another. The quantity usually taken at a dinner party, if habitually taken, would prove injurious. From one to three glasses of claret, sherry, or port, should be the limit. Light wines are preferable; the stronger liquors should never be taken, except in small quantities, and then largely diluted. The pernicious effects of the excessive use of alcoholic liquors upon the human system are so familiar to us all that it is needless for me to recapitulate them. It is sufficient to say that almost every organ of the body participates in the injury, and that the evil is not confined to the "inebriate," but extends to his offspring. There is abundant evidence to prove that it is the most potent cause of insanity. Dr. Howe, in his report to the Legislature of Massachusetts, says that out of 300 idiots 145 were children of drunkards; and we have corroborative evidence of this fact handed down to us from antiquity. Thus Plutarch says "one drunkard begets another;" and Aristotle remarks that "drunken women bring forth children like unto themselves." A stronger argument in favour of temperance cannot be produced; for he who indulges not only brings misery to himself and those around him, but entails it upon those who follow him. The consequences of intemperance are such as to have commanded the attention of legislative bodies in various parts of the world. In England, Committees of the House of Lords have been repeatedly appointed to investigate the subject. From the report of the last Committee, made in March, 1879, we gather a vast amount of information. We learn that "there appears to be a direct relation between the rate of increase of population and the rate of drunkenness, so

that, on the whole, where the population is increasing most rapidly, there is the greatest drunkenness, the more northern districts being more drunken than the southern; and that intemperance has increased among women. That, as a rule, intemperance is less among the higher class of artizans, and greater among the lowest grades of the community." But this increase of intemperance may in a great measure be attributed to the rapid rise in wages, and to the increased amount of leisure enjoyed by the manufacturing and mining classes. That the cost of the consumption of alcoholic beverages has increased from £2 18s. 6½d. per head of population in 1860, to £4 9s. 0½d. in 1876; though this increase of expenditure cannot be taken as a positive proof that drunkenness has increased in the same ratio, for statistics show that the use of tea, sugar, tobacco and wine has increased more rapidly than the use of spirits and beer. "This may be partly accounted for by the abolition and reduction of the duties on sugar and tea, and on light wines."

The next question for consideration is, What has legislation done to abate intemperance? and what can it accomplish? Laws upon the Statute Book are useless unless carried out, and to accomplish this object the laws require to have the approval of a large majority of the community, who must feel that he who evades them degrades himself. Now it is idle to expect that laws prohibiting the *use* of alcoholic beverages will be carried out, while the *importation, manufacture and possession of them is allowed*, unless the "masses" are brought to the belief that the social use of them is degrading and injurious to health. This belief does not exist, owing to the fact that a very large majority of those who purchase and consume liquor use it in moderation, are never intoxicated, and do not feel that they are injured by it. Legislators knowing this belief have directed their minds to the *abuse*, leaving the *use* to be controlled by the proper education and judgment of mankind upon the risks of over indulgence. The select committee of the House of Lords before referred to, having considered various schemes for the alteration of the licencing laws, recommended before all others,

the Gothenburgh system or a modification of it by Mr. Chamberlain. The Gothenburgh system directs that no individual either as proprieter or manager shall derive any private gain by the sale of spirits. That the whole public-house traffic be transferred to a limited liability company, consisting of the most respectable members of the community, who shall undertake by their charter to conduct the business solely in the interests of temperance and morality, and to pay to the town treasury the whole profit beyond the ordinary rate of interest on the paid up capital. The capital required for this purpose was £10,000 of which however only £7,500 have been paid up, and the annual profits amount to £40,000. The population of Gothenburg in 1876 was estimated at about 65,000. The number of licences issued by the new company was reduced from 119 to 56. Of these 13 were transferred to wine merchants for sale off the premises of wines and spirits of the higher class, not "Brânvin," which is the ordinary drink of the working classes, 10 were transferred to hotels, clubs, restaurants and cafés; 26 to public houses and 7 to shops for sale off the premises. The local authorities having the power to fix the hours of closing have prohibited all "Car" business from 6 p.m. on Saturday to 8 a.m. on Monday. This experiment appears to have worked well from the fact, that every town but one in Sweden, having a population exceeding 5000 adopted it. It is in force in 27 towns having 5000 inhabitants and upwards, and in 19 towns of smaller population. Founded upon the Gothenburg system, a scheme was brought before Parliament in 1877, by Mr. Chamberlain, uuder which he proposes to work by municipalities, and not by the "Bolag" or company. This scheme would empower town councils to acquire by agreement, or failing agreement, by compulsion, the freehold of licenced premises within their respective districts; and on purchase by agreement the existing interest of present licence holders in leases, good-will and fixtures. It enables them if they think fit, to carry on the trade for the convenience and on behalf of the inhabitants, but so that no individual shall have any pecuniary interest in, or derive any profit from the sale of intoxicating liquors. It gives power to

town councils to borrow for this purpose, on the security of the rates, and to carry all profit, after providing for interest and sinking fund, to the credit of the education rate and the poor rate in equal proportions. In the words of the committee :—

"The advantages expected from the two foregoing schemes are nearly identical."

"The control of the local authority over the issue of licences."

"A great diminution in the number of public-houses and an improvement in their convenience, healthiness and management."

"By the provisions that no individual should derive any profit from the sale of intoxicating drinks, and that the managers should keep a supply of tea, coffee and other refreshments, it is hoped that the present drinking-houses might gradually assume the character of eating-houses, and workmen's club-places of harmless resort.

"That sound seasoned spirits and light wholesome beer, would be substituted for the deleterious spirits, and heavy unwholesome beer strongly charged with alcohol, such as are now often supplied."

As the net results of the change, a diminution in intemperance, a reduction in crime and disorder and a considerable balance of profit to be devoted to the relief of local rates.

Objections urged against both schemes by extreme advocates of temperance are :—

"That town councils should not conduct a traffic demoralising and wrong in itself."

"That the temptation of profit might induce the town council to multiply the number and attractions of the drinking places."

"That the preliminary expense attendant upon the acquisition of such a property would be enormous."

"And that Town Councils are unfit to conduct so vast a business with economy and care."

I cannot do better than to give the words of the Committee upon these points :—

"We do not wish to undervalue the force of these objections; but if the risks are considerable, so are the expected

advantages. And when great communities, deeply sensible of the miseries caused by intemperance, witnesses of the crime and pauperism which directly spring from it, conscious of the contamination to which their younger citizens are exposed, watching with grave anxiety the growth of female intemperance on a scale so vast, and at a rate of progression so rapid as to constitute a new reproach and danger; believing that not only the morality of their citizens, but their commercial prosperity is dependent upon the diminution of these evils; seeing, also, that all that general legislation has been hitherto able to effect has been some improvement in public order, while it has been powerless to produce any perceptible decrease of intemperance,—it would seem somewhat hard, when such communities are willing, at their own cost and hazard, to grapple with the difficulty and undertake their own purification, that the Legislature should refuse to create for them the necessary machinery, or to intrust them with the requisite powers."

"The Committee, therefore, are of opinion that legislative facilities should be afforded for the adoption of these schemes or some modification of them."

In support of this recommendation it may be urged that the present licensing system is defective in every particular, inasmuch as the number of drinking-places far exceed the demand, creating such competition that the "publican" cannot afford to refuse credit, and must please his customer by giving him liquor at all hours. That the hours of opening and closing public houses appear to have been adopted to supply the cravings of the "inebriate" rather than the wants of the temperate consumer. For I hold that under no possible circumstance is it necessary or beneficial for a healthy person to drink before his dinner-hour; on the contrary, when the appetite craves the stimulus in the morning, the subject is on the road to ruin. Should he be ill, let him obtain it, like other medicine, from an apothecary. If restrictive laws are necessary for the abatement of the evil—and who can deny it?—the law should be framed so as to meet the object aimed at, instead, as at present, of holding out an inducement and a temptation to the unfortu-

nate victim to indulge his appetite. At the risk of being considered "Utopian," I do not hesitate to urge that *no liquor should be sold for consumption on the premises at an earlier hour than two o'clock in the day, and then only accompanied with food.* And, indeed, I might go further, and urge that it be not sold for consumption on the premises *at any time* without food. It may be argued that he would pay for the food, but not eat it. True; but the expense of the performance would have its influence upon the amount of liquor consumed by him. Stand-up drinking-bars are the curse of the community, and intoxicating drinks should not be sold at grocers' shops. Medical treatment has little effect upon the drunkard while he has the ability to indulge his appetitite. But how the law should deal with him is a question of great difficulty. The liberty of the subject must be guarded, and the community justly claim protection from the violence of his acts. There are two classes of "inebriates"—those who voluntarily get drunk, possessing the power to resist, and those who are so far lost that their voluntary power is destroyed. The first should be treated as misdemeanants, the last as maniacs. The voluntary drunkard should be severely punished,—not by fine, which too often deprives his unfortunate family of food, but by imprisonment with hard labour. The involuntary drunkard, if I may so term him, should be *kept in restraint for a period sufficiently long to cure his malady;* how long that should be must depend upon the judgment of those in charge of him. While he may be classed as a lunatic, he is not, strictly speaking, insane. The man who drinks gets sober when the drink is eliminated. The insane man does not recover by such a process. But by continued abstinence the drunkard very often regains the power of self-control, which he cannot accomplish if left without restraint. Hence the imperative necessity for legislative action giving power to confine such persons. Did such power exist it would have a restraining influence, and give the unfortunate victim a chance of permanent reformation. Voluntary drunkenness is easily defined, but the difficulty of the subject lies in the ability to define what constitutes involuntary drunkenness. There are

many shades of drunkenness. At what point is the will so destroyed as to justify restraint? This can only be learned by the history and surroundings of each individual case. And I hold that no individual should be incarcerated without a careful examination and report upon his case by, at least, three disinterested jurors, which report should be on file as a guard against improper restriction.

While I do not pretend to have exhausted this subject, I must close my paper, already I fear too long, with an appeal to all who hear me, and may say to my professional brethren who do not hear me, in favor of *temperance in the use of alcoholic drinks.* And if anything I have said has the effect of enlisting your interest in the cause, I shall feel that I have not urged in vain.

And now, gentlemen, the time has arrived when I should surrender this seat into your hands, in order that you may bestow it upon another. The seat is one that every member should aspire to hold, for it is a guarantee that the occupant possesses the confidence and good will of his confreres, without which success in our noble calling cannot be obtained. And when vacating this chair let me in all sincerity thank you for the kindness and urbanity that has been universally extended towards me, and what is more pleasing to observe, may I say towards each other, for I cannot call to mind that upon any one occasion has an unkind or offensive expression fallen from the lips of any one member towards another, proving as it clearly does, that associations of this kind, educate not only the mind, but the heart and produce a brotherly love among its members.

## EMPYEMA AND ITS TREATMENT BY VALVULAR DRAINAGE.

By A. M. PHELPS, M.D., of Chateauguay, N.Y.

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

*Mr. President and Gentlemen of the Society,*—During a visit to Montreal last winter I had the pleasure of presenting to some of the surgeons of your city an aspirator and needle which I had devised for the purpose of facilitating the operation of aspiration when the effusion is thick or laden with flakes of fibrin, and

also to wash and clean abscess cavities. Through the courtesy of your President, Dr. Hingston, I am enabled to meet with you this evening, and to offer a few thoughts upon "Empyema and its treatment by valvular drainage," exhibiting the aspirator and one other instrument.

It is very difficult to adopt a plan of treatment in empyema from published statistics, as they are so mixed up with cases that should not be classified with the disease, and then the apparent routine methods followed by some authors, leaves the student upon a vast sea of statistics without compass or sail, blown hither and thither wherever the storms of authoritative opinion may drift him, and often dashing his bark to atoms upon some unforeseen rock of experience. These facts were the incentive that led to the reading of a paper before the Medical Association of Northern New York in November, 1878, and subsequently at Albany before the New York State Medical Society, Feb. 3rd, 1880, upon "The treatment of Empyema by valvular drainage," in which I attempted to set forth and establish certain fixed principles that should govern all operative interference in these cases, and which I will attempt to explain and extend upon this evening. The varieties of empyema should be classified according to their complications and the causes that produce them, and a plan of treatment instituted accordingly. This would afford the advocates of specific operations an opportunity to furnish statistics that would be not only of great interest to the profession, but would enable them to judge of the relative merits of the respective plans. For convenience, I would suggest the classification to be into (1st) free or uncomplicated, (2nd) complicated, and (3rd) consequential.

A free or uncomplicated empyema is an accumulation of pus in the pleural cavity, the result of a purulent pleuritis, changes in serous effusion, or a pleuro-pneumonia, and not multilocular.

A complicated empyema may be multilocular, encysted or due to foreign bodies carried into the cavity by gunshot wounds and other traumatic causes. Phthisis pulmonalis, caseous pneumonia and diseases of other organs may occur in the course of empyema, even making a serious if not a fatal complication.

A consequential empyema may follow in the course of some incurable disease like tubercular pleuritis or caseous pneumonia, or may be due to an abscess bursting into the pleural cavity, or the result of some specific disease, and from the nature of the causes producing it, would almost certainly prove fatal under any plan of treatment whatever. These are the cases that should be excluded from statistics in judging of the efficacy of a particular plan of treatment.

Now, if we have succeeded in classifying empyema into free, complicated and consequential, and understandingly defined each, we will now proceed to the discussion of the treatment of each. In glancing at our literature upon the subject, the discussion or proposal of a plan of treatment would at first sight seem to be entirely superfluous. We find there specific operations recommended, and cases cited to substantiate the particular plan. This at once captivates the reader, until he makes the application in some case and meets with a signal failure. Why? Because the case has not been dealt with upon valid principles. Our ideas have been absorbed in the operation and the results quoted to sustain it. In reviewing the journals for 1880–81, I find there proposed the following plans of treatment: Fraentzel's method of free incision and aspiration; respiratory irrigation; repeated aspiration; resection of ribs; Chassaignac's operation; spraying the cavity with a Lister apparatus; and, finally, by double puncture and valvular drainage by your humble servant. What is to be done with this complicity of plans? We should, I think, classify empyema, and establish, if possible, a first principle to govern the treatment of all cases, and make every proposed operation bend to it precisely as extension is recognized, at least in the United States, as the fundamental principle in the treatment of fracture of the long bones. The profession are willing, I think, to accept the fact that before an abscess heals in any part of the body, its cavity must be obliterated by the approximation of the two surfaces either by granulation and gradual contraction, or by primary union. Since Mr. Lister has given to the profession his "antiseptic theory," we now Callender our abscesses under the spray, apply a compress, and the result

is usually the obliteration of the abscess cavity by primary union. Can we not learn, for the treatment of empyema, an important lesson from this? I think we can. The abscess has not been cured by the draining and dressing, but by these means; the cavity has been put in a condition favorable for its obliteration, and nature, now uninfluenced by germs of infection or accumulating secretions, does her work faithfully and well. Would we not then be justified in recognizing, as the first principle in the treatment of empyema, the fundamental principle upon which all treatment should be based—the obliteration of the abscess cavity by the approximation of the pleural surface? I think we would. We then establish precisely, as extension is acknowledged to be a fixed first principle in the treatment of fractures of the long bones, as our first principle in the treatment of empyema—the obliteration of the abscess cavity by the approximation and union of the pleural surfaces, remembering that every inch of lung expansion diminishes the pus-secreting surfaces. As in fractures, we would adjust our splints and adhesive plasters to apply the principle of extension; so in empyema, we should use means to approximate the pleural surfaces, and by their union obliterate the cavity. The means at once suggest themselves—1st, Empty the cavity of its contents at once to prevent the permanent collapse of the lung, and establish a perfect drainage. 2nd, Thoroughly wash and disinfect it. 3rd, Empty the cavity of its air. How? Any way possible, only empty it. I will try and explain directly how it can be done.

A fourth important aid is to compress the affected side with long strips of adhesive plaster, encircling two thirds the circumference of the chest, following as near as possible the course of the intercostal muscles. Abscesses in soft parts collapse after emptying them and thereby the surfaces are approximated, but an empyema has for one of its boundaries a rigid chest wall and the approximation of the pleural surfaces must take place by the soft parts advancing towards the chest wall by the expansion of the lung. This process cannot take place if the cavity is filled with pus, serum or air. The abscess must be not only emptied of its fluid contents but of the air also as it prevents

the expansion of the lung. The air cannot all be withdrawn if the lung is incapable of expansion, but enough should be withdrawn to keep up not an intermittent but a constant pulling upon the lung, by the vacuum produced, if I may be allowed the use of common parlance. When the lung ceases to expand and the condition of the patient will warrant it, the ribs may be resected and the chest wall pressed inward to obliterate cavity. Let us now make the application of the principles to the treatment of free or uncomplicated empyema. If the empyema is recent the pleura is probably in a healthy condition excepting where inflamed. If the abscess is small and the condition of the patient indicates a subsidence of the acute inflammation, repeated aspiration might be resorted to from one to three times a day, or *as often as any accumulation of pus may take place.* This will obliterate the cavity and if union takes place between the pleural surfaces a cure is effected. This manner of aspirating might be termed *drainage by aspiration* and is the only manner in which it should ever be applied in empyema If the pus is fœtid, the cavity may be carefully washed and disinfected by injecting and withdrawing warm Condy's fluid or carbolated water, one part to eighty.

To facilitate the operation and to aspirate effusion loaded with flakes of fibrin, I devised this aspirator and needle which is a modification of Potain's for the same purpose. (*See Fig.* 1.) If the empyema is of long duration, the entire pleura, which has been bathed with pus, becomes thickened and changed to a pus secreting surface, or may become gangrenous and inclined to slough or ulcerate in places. The collapsed lung may be bound down by bands of organized material. If the operation is deferred, the pus may burrow through the pleura into the lung or externally. A case of this kind should never be aspirated, but proceed at once upon the general principles laid down in this paper, keeping in view the fact that we are aiming at the *obliteration of a pus-secreting cavity by the expansion of the lung and falling in of the chest wall, one or both.* The first step is to empty the cavity and establish a thorough drainage; the point selected should be at the bottom of the pleural cavity, which is

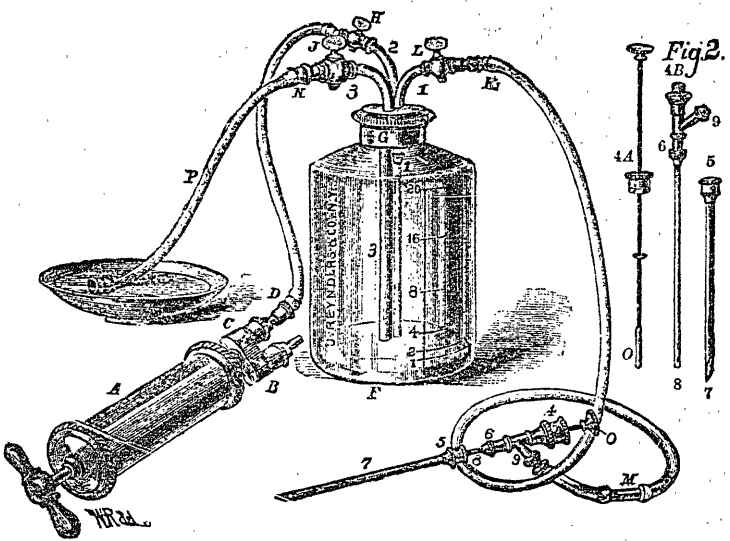
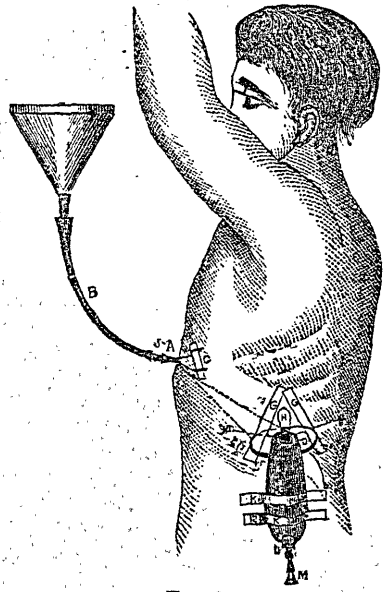



FIG 1.

DESCRIPTION OF ASPIRATOR.—When an aspiration is to be made—the stop-cocks D and J—should be closed, the pump attached to the tubing (D) at the end designated with the backward pointing arrow—showing that through it the air passes into the pump. The pump upon being worked will produce a vacuum in the receiver (F). When this is achieved the stop-cock (H) should be closed and (L) opened after the needle has been introduced. As soon as the bottle is filled it can be emptied by attaching the pump at its end (B), closing the stop-cock (L) and opening (J and H). Upon working the pump the contents of the receiver will pass out through (P). By reversing this procedure an injection can be made without disturbing the screw cap (G) of the receiver; the reservoir being filled through (P) and emptied through (K) into the abscess. The needle is a combination of principles, some of which are found in other needles. It consists of three parts as seen in fig. 2. The part (7) is slid over and (O) slid into the canula (8) the aspirator being attached to the lateral tube (9) —(7) is the cutting needle furnished with a rubber packing at (5), being shorter than (8) after its introduction (8) is pushed forward through it and the joint is protected. The obturator is to dislodge obstruction in the needle during aspiration and passes through a tight rubber packing at (4). During aspiration it is drawn out beyond the lateral tube (9). Codman & Shurtleff of Boston, manufactured a needle with the same obturator, but the needle is introduced by means of an ordinary trocar. The needle attached to the tube (K) shows it ready for operation. In aspirating pus and effusion loaded with flakes of fibrin I have not been disappointed in its use.

between the 9th and 10th ribs, on a line drawn down from the angle of the scapula. (*See Fig.* 2.) The second step is to




(FIG. 2.)

thoroughly wash and disinfect the cavity. This can be done by making a counter puncture between the 6th and 7th ribs, in front, external to the nipple, introducing a rubber tube made fast to the chest with a string and adhesive plaster. (*See Fig.* 2.) With a rubber tube and funnel, a current of water can be passed through the cavity, following the attachment of the diaphragm to the ribs, at which point all the residual pus has gravitated without the danger of tearing up new adhesions, which is likely to occur from injecting, when but a single opening has been made into the pleural cavity. The third step is to empty the cavity of its air. This can be done by means of the valve drainage-tube (*see Fig.* 3), which is introduced with the trocar, and held fast to the chest by laying strips of adhesive plaster over the rubber plate, as seen in *Fig.* 2. The valve (V—*Fig.* 3) will allow the fluid and air to pass out upon expiration, and by closing

prevent air from entering upon inspiration; by this means the lung will be pulled upon, if I may be allowed the expression,

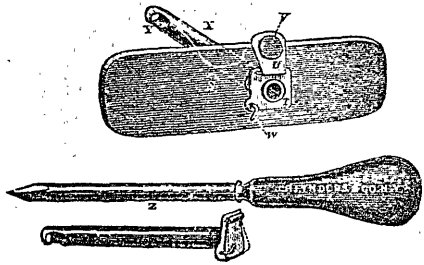


FIG. 3.

Drainage-tube, trocar and rubber plate; S, rubber plate perforated by drainage-tube T; U, soft-rubber valve open; X, drainage tube; Y, opening in same; R, trocar. Below tube is shown with valve closed.

and by its expansion, obliterate the abscess cavity. To illustrate the principle more fully, Fig. 4 is a glass jar, partly filled with

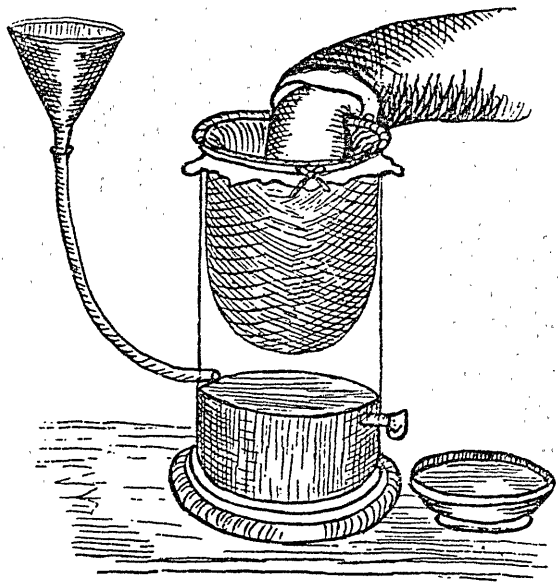


Fig. 4.

fluid, in which has been placed the valve drainage-tube, rubber tube and funnel. Over the top of the jar is tied a piece of elastic

rubber tissue. As the hand is pressed downward into the jar, the fluid rushes out through the valve drainage-tube; when the hand is removed, the elasticity of the rubber, which represents the elastic lung, closes the valve and prevents the admission of air to the jar. The rubber held down by the vacuum produced remains quietly in contact with the glass. This is precisely what takes place when the pleural cavity is emptied of its air and pus by means of the valve drainage-tube. Water poured into the funnel will escape through the drainage-tube as fast as it enters the jar, thus permitting the rubber to remain at rest.

Atmospheric pressure amounts to 15 lbs. to the square inch exerted in all directions, this is an important assistant in promoting the expansion of the lung and can only be exerted when the cavity is emptied of its air and fluid. The valve drainage tube shonld penetrate the cavity about half an inch and can be extemporized by a jeweler from an ordinary trocar and canula and leather substituted for the rubber plate, (S—*Fig.* 3.) A rubber condum or bag can be tied over the end of the tube, made fast to the chest by strips of adhesive plaster (*See Fig.* 2.) This will catch the discharge, and enable the patient to be about with his clothes on and do away with the filth attending these cases. The chest should now be strapped.

In multilocular empyema the radical operation between the 5th and 6th ribs in front of the axillary line should be performed. This would enable us to break down the bands of new tissue and liberate the sacks of pus, removing them if possible, as by their contraction they help to deform the chest. I would then introduce the valve drainage tube in the back and close the incision, retaining the tube for washing purposes. This plan should be instituted when foreign bodies have been carried into the pleural cavity from traumatic causes, requiring their removal. But I think that it should never be performed in other cases as it entirely loses sight of the all important principle, the obliteration of the cavity by the expansion of the lung and the approximation of the pleural surfaces. Air must be allowed to freely pass in and out through the large incision.

In consequential empyema, I should introduce the valve

drainage at the lowest part of the pleural cavity, and keep it as thoroughly cleansed as possible by injecting through it. The object should be to avoid punishing the patient as much as possible, as death is probably the inevitable result. The operation of free drainage or the radical operation so called should not be performed in simple empyema for the following reasons, 1st The fundamental principle governing the treatment of empyema can better be applied by other plans with less punishment to the patient. 2nd It fails to apply one of the most important of them all, viz. the obliteration of the cavity by the approximation of the pleural surfaces. 3rd It does not furnish so large a percentage of recoveries as from Dr. Bowditch's operation of simple drainage in the 9th interspace with a piece of rubber tube. 5th, It furnishes upon autopsy a large percentage of deaths from exhaustion without complications, and deaths with complications than from the treatment by simple drainage.

Dr. Wm. Cheeseman of Bellevue Hospital, in his report of twelve cases in the *New York Medical Record*, with seven deaths, says: "In considering these results, we are not led to regard incision for empyema as one of the triumphs of surgery. *Ziemssen's Cyclopœdia*, American edition, Vol. IV, page 724, Moutard-Martin gives, in 17 cases, 5 deaths, 5 fistulæ and 7 recoveries; nothing is said as to the deformity of the chest in these cases. Page 722, Fraentzel's 11 cases gives, under the spray, complete recovery in 5, 1 fistula and 5 deaths. A thoracic fistula is usually caused by the non-union of the pleural surfaces, leaving a cavity, or the drawing up of pus behind some band of adhesion or some organic disease of the pleura or lung. The deformity of the chest will depend upon the expansibility of the lung, and the expansion will usually depend upon the length of time it has been collapsed, the bands of organic material upon its surface, and the perfect appreciation of the fundamental principles laid down in this paper.

With an apology for occupying so much of your valuable time, and thanking you, gentlemen, for your patient indulgence, allow me again to express to you my gratitude for the courtesy shown me by the Society, through your President, Dr. Hingston.

# BI-MONTHLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY WM. GARDNER, M.D.,

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*Etiology and treatment of Lacerations of the Cervix Uteri.*—In a paper on this subject, in the *British Medical Journal* for 14th and 21st May last., Dr. Montrose Pallen, of New York states his present belief to be that the causes promoting laceration are more frequently dependent upon slow and tedious labours than the opposite variety. This is in opposition to the views formerly held by Dr. Pallen. "A careful clinical study of numerous cases, where each successive stage of labour was noted with accuracy, as well as the histories of very many more, convinces me that retarded, tedious and laborious labours, in fully 85 per cent, develop conditions which become undoubted factors in the production of the lesion." That the same conditions not unfrequently lead to perineal laceration would appear to be proved by the undoubted fact that laceration of the cervix, to any extent is rarely unaccompanied by a similar injury to the perineum, although Dr. Pallen asserts that he rarely has seen the latter without the former. In rapid energetic contractions, when the placenta is implanted on either side of the uterus, but which usually induces tedious labour, by diminishing the force of contraction and thereby awakening a sigmoid curve of expulsive force, one can understand how the effort of expulsion is diverted from the centre of the pelvic planes, with the formation of a folding of one of the cervical segments over the parietal boss. A rupture of tissue at this point ensues, because it is directly below the line of expulsive force, which should normally correspond with the lumen of the canal, and the centre of the external os; and undoubtedly the laceration begins in the cervical tissue to extend towards the os; whereas in those conditions of tedious, retarded or laborious labour, the rent commences at the oral circumference and travels upwards to the uterine texture. Rupture is

especially apt to take place if from any cause whatever, the symmetry of contraction be diverted into lines of expulsion away from the centre of exit, and the head be driven anteriorly, laterally or posteriorly, to form a capsule of the cervical segment. This leads to the production of congestion, ecchymosis, œdema and actual bruising of tissue. The elasticity and distensibility of the cervix are thus impaired. A most common cause of rupture is the scleremic condition of cervix, which follows the hyperplasia resulting from congestion and inflammation. The minute changes are shrinkage, atrophy and induration of connective tissue, with agglutination of muscular striæ. The whole substance is thus rendered friable, inelastic and hard. In these conditions the indication is to hasten labour by hydrostatic dilatation and version or forceps, and this, notwithstanding the fact that incautious delivery by those means may lead to laceration of the cervix. How is the accident to be recognized? It cannot positively be detected till the child's head is delivered. Then it is to be suspected if the child's head and mother's vulva suddenly become bathed in blood. Hemorrhage is the chief symptom. It may be fatal if it persist. It is necessary to examine with the finger and if still in doubt by the Sims speculum, the patient being in the proper position. The bleeding point may then be discovered and tamponing resorted to if the hemorrhage be sufficiently alarming, or immediate adaptation of the edges with wire sutures. There is much to be said in favor of the latter course in all cervical lacerations. Hemorrhage is checked, and if the edges are well fitted together, and the wires twisted tight enough and the formation of suppurative foci thus prevented, septicæmia can scarcely occur, as commonly primary union takes place and no raw surfaces are left for the absorption of septic material from the lochial discharge. Again the woman utilizes her lying-in period to facilitate union by her quiescence. She is thereby saved a future operation, attended with a certain amount of danger. An important point in the details of passing the sutures is to remember that involution is inevitable, that we have an exaggerated surface on which to operate, and that in the process of healing we must anticipate a marked degree of

contraction. The wires ought therefore to be passed fully one half-inch from the torn margin and when ready to be removed, usually not less than fifteen days after insertion, they will be separated scarcely more than one line. As accurate coaptation as possible of the edges by a sufficient number of sutures must be secured. The wound must be examined from time to time by the Sim's speculum and the sutures tightened if necessary. The after treatment consists in carbolized or thymolized tepid water vaginal injections every few hours, for some days. In the course of his remarks Dr. Pallen takes occasion to allude to the remarkable results obtained at the New York Maternity Hospital, by the system of washing out the vagina immediately after delivery and every six hours subsequently. Twelve hundred patients are confined annually in this institution. During the five months preceding July 1st, 1880, there was not a single death, no tendency to puerperal epidemics, and but very few cases of high temperature.

The latter part of Dr. Pallen's paper is devoted to a consideration of unhealed lacerations, their results and treatment, but as there is nothing specially new I pass it by. Dr. Pallen deserves much credit for thus forcibly drawing attention to the importance and practicibility of immediate attempts at reparation of lacerations of the cervix. I believe the time is not far distant when every competent accoucheur will carefully examine for such injuries and if found to be present will put in force the appropriate treatment.

*Peri-Uterine Adenitis.*—Every practitioner who devotes even a moderate amount of attention to the diseases of the female sexual system, will admit that cases are not rare in which, while the objective symptoms or signs of uterine disease—such as leucorrhœa, congestion, redness, and granular conditions of the cervix, are after patient perseverance in treatment removed, the subjective evidences on the part of the patient, hypogastric and lumbar pain, and other painful and unpleasant sensations, persist. Dr. Courty, author of a paper with the title here given, in the April number of the *Annales de Gynecologie* of the present year, believes that he has discovered the cause of this, in

a certain number of such cases, to be inflammation of certain lymphatic glands, situated in the cellular tissue between the laminæ of the broad ligament. In support of his opinions, M. Courty alludes to the frequent discovery of pus in the lymphatic system, (glands and vessels), of women dying of puerperal fever, as showing that such inflammation does occur. The symptoms, as compared with those of the metritis, which it outlasts, are more circumscribed character of pain; situated more deeply in the pelvis; commonly one-sided, most frequently on the right, on the posterior wall of the pelvis, close to the sacrum or coccyx; shooting to the anus; excited or increased by standing or sitting, by coitus, by the use of the Sim's speculum or the posterior blade of a bivalve speculum; and, finally, that this pain does not extend so much to the lumbar region, still less to the epigastrium, and that it is unattended by any of the reflex phenomena, such as loss of appetite, dyspepsia, nausea,etc. which simulate early pregnancy, and are so characteristic of uterine congestion, metritis or retroversion. In cases where such symptoms are present, careful digital examination will detect no uterine or general peri-uterine tenderness, but behind the uterus or along its borders will usually be found one to three little bodies, varying in size from a pea to a hazel-nut, in form somewhat rounded, but uneven or irregular, and so intensely tender to touch, as to elicit complaints of pain or very slight pressure. The only two conditions from which peri-uterine adenitis requires to be distinguished are prolapsus of the ovaries and other forms of peri-uterine inflammation. The prolapsed ovary is larger and smoother, glides away from touch easily by pressure with the finger, unless adherent, when the difficulties of diagnosis would be much increased. Peri-uterine inflammation, cellulitis or peritonitis, fixes the uterus more or less, forms a tumour about the organ on one or other side, or posteriorly, or surrounds it. In the stage of resolution when the phlegmasia has almost disappeared, traces remain in the shape of fibrous tracts and false membranes impeding the mobility of the uterus and more or less numerous nodules of indurated cellular tissue, always more numerous and much less sensitive

than the inflamed lymphatic glands which constitute the disease under consideration.

The treatment is antiphlogistic and resolvent. The necessity for patience and perseverance will be apparent when we reflect how tedious glandular inflammations are elsewhere. M. Courty advocates alkaline baths, hot water injections, and mercurial ointment with belladonna applied over the abdomen. If leucorrhœa exist, a little carbolic acid, coal tar, &c., should be added to the water used for vaginal injection. Actual vaginitis may require linseed tea, starch, marsh mallow, or bran-water injections. The ointment spoken of consists of 100 parts blue ointment to 5 parts of extract of belladonna, which is thickly spread on a compress of linen large enough to cover the lower part of the abdomen. Over this is laid a layer of carded cotton, and finally the whole is covered with oil silk or gutta-percha tissue. This dressing is kept in position by a pair of knitted bathing-drawers. It is kept on night and day, a little more ointment being spread each day on the same piece of linen. During this treatment M. Courty asserts that mercurial stomatitis may be absolutely prevented by careful cleansing of the teeth, mouth, gums and throat with a saturated solution chlorate of potass after each meal. An important part of the treatment consists in securing regular action of the bowels by saline laxatives. In the later stages iodide of potass is useful, and, commonly, also tonics, as iron and quinine, and change of air. In tedious cases, water-cure treatment is often useful.

*A New Idea in the Treatment of Vaginitis.*—The treatment of vaginitis by the ordinary methods is so often unsatisfactory that any hint will, doubtless, be gratefully received. Drs. Terillon and Auvard, *internes* at the Hôpital Lourçine, Paris, have recently adopted the following method. An ointment or pomade is prepared after the following formula:—

| | | |
|---|---|---|
| Vaseline | 150 | parts. |
| Starch | 150 | " |
| Tannin | 50 | " |

This has the consistency of a thick paste, and is introduced by a specially contrived instrument, which consists of a reservoir,

having attached to it a tube 10 centimetres long, with its end obliquely cut off, and the edges carefully rounded and made smooth. The reservoir is fitted with a lid or cover, perforated to allow the passage of the rod of a piston, whereby the ointment is forced through the tube in the form of a cylinder, about one centimetre in diameter. The instrument is made by MM. Matthieu of Paris. The principal advantage consists in the possibility of introducing the medicament easily and almost painlessly, even in the acute stages of the disease, to the fundus of the vagina. The consistence of the ointment is such that it is rarely necessary to tampon the vagina to retain it, and on examination several days afterwards it will often be found in the vagina producing its beneficial effects without causing irritation. The great advantage of infrequent dressings is thus secured.

Experience of this method of treatment in the hands of the gentlemen who have invented it, proves that it is rapidly efficacious.—*Annales de Gynecolagie*, from the *Bulletin de Therapeutique.*

*Recent improvements in the mode of removing Uterine Tumours.*—The question of removing uterine tumours presents at the present day a very different aspect to that of fifteen years ago. In 1863 Mr. Spencer Wells' experience of four cases led him to the conclusion "that it would only be under most unusual circumstances that I would again remove an interstitial fibrous tumour of the uterus; a peritoneal growth, or an ingrowth towards the uterine cavity and vagina, offering in my opinion, far more probabability of successful removal than an interstitial tumour." Ten years later in 1873, further experience led Mr. Wells to say that, "when a uterine tumour is pedunculate or can be separated from the principal part of the uterus, or when the whole of the fundus and body of the uterus, with or without the ovaries can be removed, leaving the cervix and its vaginal attachments uninjured, the operative question is a different one, and recent experience is leading to a more encouraging view of the surgical treatment in such cases." Previous to July, 1878, Mr. Wells had treated forty-five cases of uterine tumour by operation, through the abdominal wall.

During the two next years he adopted two important modifications in the operative procedure: first, the more complete use of antiseptic precautions, and secondly, the union by suture of the peritoneal edges of the divided uterine wall. He also contrived better pressure forceps for securing divided blood vessels before tying. A few cases which were removed with attention to these points during the operation are reported. In concluding his paper Mr. Wells expresses his hopefulness that, by the use of the improved pressure-forceps, the arrest of hemorrhage will be much more easily effected than hitherto; that suture of the uterine wall will obviate largely the possibility so much dreaded by all operators in abdominal surgery, of admission of fluids from wounded muscle, fat and cellular tissue to the peritoneal cavity; and that by careful attention to all needful antiseptic precautions, the removal of uterine tumours may now be undertaken with a far more confident expectation of a successful result than could have been reasonably entertained a few years ago.

*The value of the Decidua Cell as an evidence of Pregnancy.*—Those conversant with recent histological work will remember Wyder's researches in this line. The great care and ability with which they were conducted entitle them to much respect. It will be remembered that his conclusions were to the effect that by the characters of the epithelial cells of the uterine glands and by conditions of the intra-glandular tissue the question of pregnancy in doubtful cases could be determined. From a medico-legal point of view the importance of these statements is obvious. Wyder asserted that the mucosa menstrualis contains cells of 0.005 to 0.008 measurement. They are small, round and quite filled with a nucleus. The cells of the decidua are large, 0.02 to 0.05 with a well developed protoplasm in proportion to the large nucleus. Dr. Carl Ruge, of Schroeder's clinic at Berlin, while admitting that in general Wyder's statements are correct, yet asserts that there is nothing quite peculiar to, or absolutely distinctive in the size of the cells and their nucleus, in the development of the protoplasm, in the way in which it is affected by staining fluids, or in the relations to surrounding structures.

Ruge cites several instances of endometritis complicating metritis, endometritis complicating myoma and dysmenorrhœa, which he examined and found the microscopic characters of the membrane to be exactly those of decidua vera as laid down by Wyder. He therefore coucludes that the so-called decidua cells are not characteristic of pregnancy.

## LARGE ABSCESS UNDER THE TEMPORAL FASCIA, WITH EXTENSIVE DISEASE OF BONE.

### RECOVERY WITHOUT EXFOLIATION.

By FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., Eng.
Surgeon to the Out-Door Department of the Montreal General Hospital, Demonstrator of Anatomy, McGill University, &c.

(*A Paper read before the McGill Medical Society, June 23, 1881.*)

My attention was directed a few weeks ago to a paper in the *London Lancet* by Mr. Henry Morris, headed "Abscesses connected with bone, treated with and without Lister's method," in which the author holds that the apostles of Lister attribute successful results too much to the various details of the special treatment employed and too little to nature. This is especially so when they affirm, as two well known and able men did in commenting on the favorable results of a case of abscess connected with bone treated by Lister's method: "Had the abscess been opened without antiseptic precautions, prolonged fœtid suppuration and exfoliation *must* have resulted." Mr. Morris, in support of his assertion, quotes a case of a large abscess connected with bare bone which was cured without exfoliation and without Listerian treatment.

Feeling the justice of his remarks, I am tempted to place on record a case which was under my care a year ago, which also recovered without bony exfoliation and without Listerian precautions.

Case.—Susannah S—, a delicate child, aged five years, came to the Montreal General Hospital, April 19th, 1880, suffering from a large abscess of the head. The tumor formed by the abscess was nearly half the size of the child's head, and extended

from the right mastoid process to past the middle of the frontal bone. There was great bulging of the temporal muscle above the zygoma, and the ear of the affected side stood out at right angles to the head. The glands of the neck, especially those behind the sterno-mastoid muscle, were much enlarged. On examining the ears, she was found to be suffering from a purulent otitis media. The child was in a miserably weak and cachectic condition, and had some elevation of temperature, with rapid pulse. The mother said she had been failing rapidly the last week. Two months ago she had scarlet fever; this was followed by numbers of small abscesses in the neck and head. Some two weeks after the fever she had a running from the ears, which has continued to the present time. About a month ago a swelling an inch above the middle of the right zygoma was noticed; this swelling gradually increased and extended until it presented the appearances described above. The child's health failed as the abscess increased.

This abscess was opened freely in the most dependent part, behind the ear, and a quantity of pus was evacuated. The abscess cavity was between the bone and pericranium, and on passing in a probe, bare bone was felt for several inches in every direction. The tissues of the scalp were very œdematous, and consequently much thickened, so that the abscess looked larger than it really was. A large drainage tube was introduced, and the opening dressed with water-dressing; a bandage was then carefully applied, so that the pressure over the abscess should be firm and even, and the child was ordered to take ℥ xv. of the Syr. Ferri Iodidi three times a day in water. In three days the child returned, looking much better; the swelling was now confined to the temporal fossa and mastoid process. The abscess discharged freely. I removed the tube, put in a shorter one, and dressed as before. For nearly a month the abscess remained in much the same condition, and smooth, bare bone could be easily felt in all directions. After this the bone became rough, and granulations began to spring up over it; evidently the scale of dead bone was being removed by absorption.

On June 14th the abscess was found not to be discharging

freely, and on examination a collection of pus was seen to exist about two inches above the external angular process. An incision was made and the pus let out, and the two openings (the old and the new) were connected by a drainage-tube; the bone under this collection of pus was quite bare, and was white and smooth. The head was dressed as before. From this time the child progressed favorably.

On July 18th I made the following note: Child continuing to improve; swelling much reduced, and ear gradually resuming its normal position. No bare bone can now be felt through lower opening; through the upper opening dead bone can still be felt, but it is rough, and has not the white, smooth appearance it had two weeks ago. Removed the drainage tube.

On August 19th a small scale of bone, size of a millet seed, came away from the upper opening; lower opening had ceased discharging, and was closed. Glands of neck, which hitherto had been much enlarged, were now rapidly diminishing in size. Bare bone was still felt through upper opening, which discharged pretty freely.

When last seen, on September 7th, the child was quite well; swelling had entirely subsided, and upper opening had healed without any of the bare bone coming away. The ears, however, discharged freely, and a polyp was seen in left ear. Her general health seemed to be quite re-established.

*Remarks.*—The good results in this case were no doubt due to the thorough drainage which was kept up and the firm and careful bandaging. But I have brought this case before you principally to show you that favorable terminations of serious cases do occur without that high ritual of Listerism which many of you in the future will be unable to carry out. The fact that so large a surface of bare bone should become healthy without exfoliation is interesting. The original cause of the abscess was no doubt the otitis media, which was in its turn consequent on the scarlet fever. Had I another case of abscess under the temporal fascia, I should be inclined to carry out the late Mr. Hilton's suggestion of making an opening into the mouth through the temporal fossa, and so draining from the lowest point; no doubt, had this been done, convalescence would have been hastened.

# Correspondence.

*To the Editor of the* CANADA MEDICAL & SURGICAL JOURNAL.

SIR,—I was very sorry to see the communication relative to an overcharge on the part of a druggist in your last number, because I think the physician making the complaint should have gone direct to the druggist, and have asked an explanation. That it was an error, either on the part of the clerk who made the charge, or on that of the patient who made the complaint, is quite evident, for no druggist would ever dream of charging 60 cents for six plumbi acetat. pills.

The prices which obtain in this city are, generally speaking, as follows:—8 oz. mixtures, 50c.; 6 oz. mixtures, 40c., and so on. Ordinary pills, 25c. per box of one or two dozen. Ointments (compound), including covered pots, 1 oz., 25c.; 1½ oz., 30c.; 2 oz., 35c.; suppositories, 50c. per dozen. Wyeth's Elixirs, of course, cost the patient a little more than ordinary mixtures, some of them being expensive, and the prescriber very seldom diluting them, which he might readily do, and thus reduce the price to the patient. Some of the coated pills are dear, for instance, Pil. Neuralgic, Dr. Gross' formula, and are charged accordingly. Quinine mixtures, when the quantity of quinine is large, and eserine or atropial eye-lotions, &c., have to be charged at special rates. The prices charged in Montreal for dispensing prescriptions are, as a rule, more reasonable than in any of the cities in the United States. It should be borne in mind that an old established pharmacy can always command higher prices than a newly opened one without as yet an established reputation. The same rule holds good in the medical, legal and notarial professions.

The remedies suggested by your correspondent for the prevention of exorbitant prices, I am bound to say, are very far-fetched indeed: Dispensing one's own medicine, discussion at the Medico-Chirurgical, and opening a co-operative dispensing counter. The first is absurd, except for those physicians who desire to lose caste; the second would lead to nothing, besides

there are many much more important subjects requiring discussion at the Society's meetings. The co-operative drug store is luckily, in the interests of the public, prevented by the provisions of the Pharmacy Act, and if it were not, does your correspondent think that clerks would be any more painstaking when working for a company than for an individual?

The remedy I would suggest is a better feeling between the physician and the pharmacist. Let the former learn to treat the latter with a little more forbearance, and when a slight mistake does occur, which, for the honor of scientific pharmacy, I am proud to say is exceedingly rare, let him remember that we are all mortal and liable to error. To the pharmacist I would say, do your duty uncomplainingly and cheerfully, and always bear in mind that you have the physician's reputation in your hands as well as your own. *Suum cuique.*

Truly yours,

"CHEMICUS."

MONTREAL, May 28, 1881.

[NOTE.—By a delay in transmission the above letter did not reach us in time for the June Number. We cheerfully give it insertion, for, in matters of this kind, it should always be, *audi alteram partem.*—ED.]

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## Reviews and Notices of Books.

*Lectures on Diseases of the Nervous System, especially in Women.*—By S. WEIR MITCHELL, M.D., Member of the National Academy of Sciences, Physician to the Orthopædic Hospital and Infirmary for Diseases of the Nervous System, etc. With five plates. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Bros.

This work consists of 13 lectures delivered by Dr. Weir Mitchell, on several of the forms of neurotic disorder, which are especially observed in the female sex. Some of the well-known types of disease are studied, but there are also introduced a number of peculiar nervous disturbances, to which but little

attention has yet been directed. The author's observations are thoroughly original, and furnish us with the results of the careful study of one of the best American neurologists. The lectures are written in a keen and logical manner, and withal with an elegance of style and diction which renders them quite pleasant reading. As we should expect, the protean malady, hysteria, occupies the largest share of attention. Dr. Mitchell naturally speaks of the disgust with which general practitioners undertake the management of the subjects of this unmanageable complaint, and how, from this cause, its symptoms and associations are not always studied with the care which leads to success. Hysterical Paralyses are well treated of and illustrated, also several of the forms of nervous mimicry. The chapter on hysterical aphonia is interesting, from containing an explanation of the separate varieties of this vocal derangement which are met with. "We have, first, bilateral palsy of the adductors of the vocal cords; second, disassociation of the various organs needed in phonation; third, habitual spasm, or sense of spasm, during use of the larynx during speech." Concerning the second variety, of which we have seen some marked examples, the author says, "I can give no explanation of the immediate causes of these singular inco-ordinations." On the subject of chorea, there are some interesting studies of Dr. Weir Mitchell upon the climatic relations of this disease, and also upon the degree in which it attacks the colored races. With reference to the region about Philadelphia, he has shown that chorea prevails to a remarkable extent in the months of March and April, the cases met with at his clinic being then much more numerous than at any other season of the year. Dr. Mitchell had observed the infrequence of chorea amongst black children. He therefore made, by circular, a great number of inquiries upon this point amongst practitioners in the Southern States, and with very few exceptions he found that they confirmed his previously entertained opinion concerning the comparative immunity from the disease enjoyed by the colored races. Lecture XIII is on "the treatment of obstinate cases of nervous exhaustion and hysteria by seclusion, rest, massage,

electricity and full feeding." This original plan of treatment has been highly spoken of by Dr. Playfair of London and others, and has sometimes produced remarkable results. It is well worthy of the attention of practical physicians, for all know how desperately disheartening the management of such cases are under any ordinary treatment.

These practical essays by a distinguished neurologist should be, and no doubt will be, widely read. They convey a great deal of useful information upon a number of interesting points in various diseases, and are suggestive of enquiry and investigation in various directions.

*A Manual for the Practice of Surgery.*—By THOS. BRYANT, F.R.C.S., Surgeon to, and Lecturer on Surgery at, Guy's Hospital, Memb. Correspond. de la Société de Chirurgie de Paris. Third American from the third revised and enlarged English edition. Edited and enlarged for the use of the American student and practitioner. By JOHN B. ROBERTS, A.M., M.D., Lecturer on Anatomy and on Operatic Surgery in the Philadelphia School of Anatomy, &c. With 735 illustrations. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Brothers.

New editions are the order of the day. Bryant's Surgery, therefore, comes to us in a fresh garb and with almost all the novelty of a new work. On referring to several of the sections in which the most remarkable improvements in surgical practice have been made of late years, we find that each one of these here finds a place and is accorded its due share of attention. The American author has also done good service in adding in numerous places bracketed interpolations relating chiefly to the views and practice of eminent American surgeons. This undoubtedly adds to the value of this edition as a text-book in the United States and in this country. Concise and practical as it has been made in every chapter, yet the necessary requirements have now enlarged it to such an extent that it occupies one thousand large octavo pages. Bryant's is now one of our most popular text-books and works of reference, and is here presented

to students and physicians in a most attractive form. It is half Russia-bound, with elegant type-work and excellent woodcuts.

*The Principles and Practice of Surgery: being a Treatise on Surgical Diseases and Injuries.*—By D. HAYES AGNEW, M.D., LL.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Profusely illustrated. Vol. II. Philadelphia: J. B. Lippincott & Co. Montreal: Dawson Brothers.

The second volume of this comprehensive work is now published. It includes the sections treating of Dislocations, Diseases of the Joints, Excisions, Anæsthetics, Amputations, Affections of the Genito-Urinary Organs, Surgical Diseases of Women, Affections of the Spinal or Dorsal region, and Surgical Diseases of the mouth. It would be impossible to attempt, in the space at our disposal, any review of this valuable treatise. Suffice it to say, that in it each of the subjects above enumerated is laid before the reader in an almost exhaustive manner. The high position long held by Professor Agnew amongst American surgeons makes it certain that his present book will everywhere be accepted as containing the opinions of the leading men of this continent as well as those of foreign origin. The third volume, which will complete the entire work, is said to be already in an advanced state of preparation. We recommend every practising surgeon to possess himself of this, which will long rank as one of the leading standard authorities on all matters surgical.

## Books and Pamphlets Received.

*A Treatise on the Diseases of the Nervous System.* By William A. Hammond, M.D. Seventh edition. New York: D. Appleton & Co.

*Therapeutic and Operative Measures for Chronic Catarrhal Inflammation of the Nose, Throat and Ears.* Forty illustrations. Part II. By Thos. F. Rumbold, M.D. St. Louis: Geo. O. Rumbold & Co.

*The Mont Doré Cure, and the proper way to use it.* By Horace Dobell, M.D. London: J. & A. Churchill.

*The principles of Myo-Dynamics.* By J. S. Wight, M.D. New York: Bermingham & Co.

*A Practical Treatise on Impotence, Sterility and allied disorders of the Male Sexual Organs.* By Samuel N. Gross, A.M., M.D. Philadelphia: Henry C. Lea's Son & Co.

# Proceedings of Societies.

## MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

A regular meeting was held May 27th, 1881. The President, Dr. Hingston, in the chair.

Dr. Osler exhibited the following specimens:

1. A microscopic slide of the kidney of the case of uræmic coma described at the last meeting. There was found a much greater alteration in the structure of the organ than the mere inspection would have led one to believe. The capsules of the Malpighian bodies were thickened and the entire tufts in places atrophied. No special changes were observed in the renal epithelium, with the exception of the granular.

2. An aneurism of aorta. Case had been under the care of Dr. Ross and Dr. Osler. The former gave a brief summary: pulsation felt at 2nd rib on the right side; had had syphilis; was treated by absolute rest, potass. iod., and low diet. At the end of ten months it was thought that pulsations were diminished, and he went about his work. Last summer was quite active as a painter. This went on till a week ago, when, on his way to church, was seized with violent pain, and Dr. Ross found him dying. At *post-mortem* it was seen that the aneurism had burst into the *pulmonary artery*. In the sac of the tumour there was not a single layer of laminated fibrine. Dr. Ross remarked that the situation of the rupture was unique in his own experience, and enquired if any member had observed a similar occurrence. Another point of interest in the case was the fact of the prolonged and careful treatment by Tufneli's method, at the end of which it was thought that some consolidation of the sac had taken place; and yet, after death the entire sac was simply occupied by a large, loose, yellow, gelatinous mass of fibrine of very recent formation. No deposition of fibrine whatever had taken place under the treatment. That he lived two years in comfort seemed to have been due to toughness of the sac, thus preventing further enlargement. The case certainly shows that coagulation in an aneurism depends more upon the mechanical conditions present than upon any induced state of the blood, and that if the former

be very unfavorable, this result may be impossible of attainment by any treatment, by medication or otherwise.

3. Small contracted kidneys from a girl aged 26, who died in the Montreal General Hospital. She was admitted with headache, vomiting, hæmorrhages from vagina, nose and navel. She became comatose, had several convulsions, and died on the third day. The urine was albuminous. So far as could be ascertained, the patient had not suffered from any symptoms prior to this attack. She had not been a drinker, but she had been ill-treated and abused. Kidneys were greatly shrunken, capsules thickened, surfaces very granular, cortices much diminished, and arteries thickened.

4. Specimen of cancer of bones of skull (exhibited for Dr. Worthington of Sherbrooke.)

Dr. Shepherd exhibited the following specimens, all from subjects dissected last winter and with no history:—1. Fracture of left half of the inferior maxillary bone through the mental foramen. 2. An ivory exostosis, size of a bean, growing from the posterior edge of the left coronoid process of the inferior maxillary bone, and enclosed in the tendon of the temporal muscle. 3. Fracture of the astragalus; the posterior ear-shaped portion of the bone, which is behind the groove for the tendon of the longus pollicis muscle, and to which the posterior strand of the external lateral ligament is attached, had been broken off, and only united by fibrous tissue. This caused no deformity.

Dr. A. M. Phelps of Chateauguay, N.Y., was then introduced, and read a paper on "Empyema," giving also an exhibition of an original mode of treating pus in the pleuræ. (*See page* 719.) The principle which he laid down first was, in all operative interference, the speedy obliteration of the pleural cavity by the greatest possible expansion of the lung. The cure of empyema is not effected by washing or evacuating the pus *per se*, but by the expansion of the lung and the falling in of the chest wall, one or both. The adhering together of the pleuræ brings about the object at which we aim, viz., the obliteration of the pus-secreting cavity. This can never take place if pus is allowed to accumulate or decompose in the pleural cavity, and only very imperfectly if

air is permitted to freely pass in and out the drainage tube during respiration. When the lung ceases to expand sufficiently to perfectly fill the pleural cavity, adhesions form between the pleural surfaces with the result of a large pus-secreting cavity, and unless the chest-wall bend in and obliterate this cavity, patients sink from exhaustion or have ever afterward a thoracic fistula. The lung in this collapsed condition is prone to caseous pneumonia. The principles of treatment are: 1st, Evacuation of the pleural cavity as speedily and judiciously as possible, thus preventing permanent collapse of the lung; 2nd, Thorough ablution and disinfection; 3rd, Strapping the side and keeping the chest quiet; 4th, Introduction of valve drainage-tube.

Dr. Phelps gave a full description of an aspirating needle which he had devised, and of the mode he followed in washing out the chest.

Dr. Roddick said he had made single and double openings, and found that operations in old persons sometimes have bad results, while success is the rule in the young.

Dr. Osler said he had seen a considerable number of cases treated. As far as his experience has gone, under antiseptic treatment the success had been better than any witnessed before. Dr. Osler referred to a patient, a boy, lately exhibited to the Society, where a perfect recovery was made.

Dr. Blackader said a number of years ago Dr. Robert Lee attempted to use a valvular opening, but failed completely in its use. In a case of empyema which he (Dr. Blackader) had last summer, the result has been almost perfect. He expressed his conviction of the excellence of the plan advised by Dr. Phelps, and would take the first opportunity of using the operating needle devised by the reader of the paper.

Dr. Geo. Ross said the simpler the method of treatment the better. A single, large incision treated antiseptically seemed to him to be the best; as to the success of aspiration of the chest in young children, he fully agreed with Dr. Roddick.

Dr. Hingston said in empyema, as in synovitis, the question was *how* to operate. Large accumulations may take place, and will be absorbed. If an operation is decided on, the question is,

how to operate. The simpler the operation the better. He did not agree with Dr. Ross that a large opening treated antiseptically is the simplest. He favored a trochar and canula of moderate size. This was often followed by complete cure, especially in children. The method he adopted was to use his finger as a valve. Results are various. He tapped a case 16 years ago and drainage is still going on. He thought that the method of washing out the chest was thorough.

The meeting then adjourned.

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## Extracts from British and Foreign Journals.

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

**Occlusion of the Coronary Arteries.**—An instructive case has been recorded by Dr. Karl Dehio, of Oldenburg. A man, thirty-one years of age, had suffered from attacks of sudden cardiac distress, accompanied by a sensation of painful pressure in the region of the heart, and a feeling of great anxiety. These attacks ultimately occurred daily. At last a very severe seizure occurred, characterized by pallor of the skin, feeble impulse of the heart, indistinctness of the sounds, and apparently failure of the left ventricle, while the right ventricle continued to contract forcibly. There was also acute œdema of the lungs, the progress of which could be watched during the attack, in which he died. It was found that "sclerosis" of the wall of the aorta had led to occlusion of the entrance to the left coronary artery, and had narrowed that of the right. There was fatty degeneration of the walls of the heart. The previous attacks were ascribed to the gradual narrowing of the vessel, which rendered the blood-supply to the heart insufficient to enable it to respond to the call for any extraordinary exertion.

It is of interest, in connection with this case, to note some experiments on the effect of sudden occlusion of the coronary arteries which have been communicated by M.M G. Sée, Bochefontaine and Roussy, to the Académie des Sciences. The first to observe the effects of artificial closure of the coronary

arteries was Chirac. In 1842 his experiments were repeated by Mr. Erichsen, who found that, in the dog, ligature of these arteries causes progressive retardation of the pulsations of the heart, followed by its arrest in from three to twenty-one minutes. He found that the contractions cease in the following order when the left artery is ligatured: first in the left ventricle; then in the right auricle; then in the left auricle; and lastly, in the right ventricle. Schiff has maintained that the ligature of one coronary artery causes *immediate* paralysis of the cardiac region which it supplies, while the neighboring parts preserve their usual rhythm. The experiments of the French investigators were made upon dogs under the influence of curara, morphia and chloral, of the two latter combined, or of daturine and curara, artificial respiration being kept up. The coronary arteries were suddenly tied at their origin, while the heart was still beating vigorously. At the end of a period of one or two minutes, the rhythmic ventricular contractions, a little retarded, ceased suddenly, and were replaced by a disordered, tremulous movement, more or less violent, of the muscular fasciculi of the ventricles, analogous to that which has been observed to succeed the faradisation of the heart. It was most intense in the right ventricle. Soon the two ventricles became swollen, the auricles continued to supply them with blood, and the arterial pulse disappeared. In order to produce this effect it is not necessary to tie both the arteries at their origin. In one animal the posterior coronary artery was tied, and then two principal trunks of the anterior artery—the auricular and ventricular trunks—leaving free the branch which passes into the interventricular septum. The ventricular contractions became weakened in the same time, and then suddenly ceased, being replaced by disordered contractions, while the auricles, after a moments pause, resumed their rhythmical pulsations, which gradually became weaker and ceased. In another experiment the ventricular branches of the right and left coronary arteries alone were tied. The same results followed, and were also produced when the whole of the anterior coronary artery, or its two principal trunks, were closed. In one experiment similar phenomena were pro-

duced in six minutes by the closure of the posterior coronary artery alone. In another, the ligature of this vessel for five minutes produced no effect whatever. The anterior artery was then tied, and the disordered action of the heart immediately commenced. The division of the vago-sympathetic trunks in the neck did not modify these phenomena, and they were unaffected by strong faradisation of the peripheral extremity of the superior cervical ganglion.

The conclusion drawn from these facts is that the arrest of the circulation in the heart by obliteration of the coronary arteries, modifies the contractility of the muscular fibres of the heart, so that they become incapable of contracting in their normal rhythmical manner. It may be objected that the condition of the ventricles is due to the excitation of the perivascular filaments, which, irritating the intra-cardiac ganglia, deranged the normal action of the fibres. In order to ascertain the force of this objection, water charged with lycopodium spores was injected into the aorta by a branch of the anterior coronary artery. The systolic flow carried the lycopodium spores to all parts of the heart. In a minute and a half or two minutes the ventricles became pale, and immediately the tremulous movement, characteristic of the occlusion of the coronary arteries, set in, and presented the same characters as when produced by their ligature. The phenomena observed were thus simply the effect of the arrest of the blood-supply.—*London Lancet.*

**The Use and Abuse of Respirators.**—Dr. Hayden read a paper on this subject, in which he arrived at the following conclusions: The nasal passages are the natural channels for the introduction of air into the lungs and its expulsion therefrom; they are, by their construction and organization, admirably adapted to serve as such, and if judiciously employed, and in a healthy condition, are adequate for this purpose, under the varying conditions of weather and climate, unaided by artificial appliances of any kind. The mouth and fauces constitute the natural passage for aliment; they are not designed for use as air-passages, and should not be employed to supersede the

nares in breathing. By their communication with the larynx they are, however, obviously designed to serve as alternative air-passages, supplementary of the nares when the latter are obstructed, or from any cause incapable of conducting air to the lungs. The use of oral respirators is based upon a misconception of the functions of the mouth in regard to respiration, and they should not be employed, because they are not only unnecessary, but positively mischievous, by the habit which they induce of breathing through the mouth. Nasal respirators may be useful, under special circumstances, to exclude dust from the air passages. Muffle-respirators may be used to protect from draughts of cold air, but the muffler alone will serve equally well for this purpose. Finally, respirators for the occasional administration of certain medicines by inhalation are often useful, and may for this purpose be either oral or nasal. Dr. Quinlan believed the best protection against catching cold was the practice of sluicing the whole head, face and neck every day with cold water. When passing from warm into cold air, it was advisable to keep the mouth closed. He thought that the putting on of an ordinary respirator was useful, because it covered the mouth, and because it reminded them not to talk to people in cold air. Nasal respirators he condemned, but he had himself experienced the advantage of wearing a respirator, under the circumstances he had mentioned. He disbelieved in mufflers. Dr. J. W. Moore remarked that healthy infants always breathed with the mouth closed. There was no doubt that breathing through the mouth was an acquired habit. Dr. Finny said he had adopted the practice of putting a small quantity of cotton-wadding up the nostrils on going from warm into cold air, and had found the greatest benefit from it. Dr. Hayden, in reply, said it should not be forgotten that the act of speaking involved an act of expiration, not one of inspiration. He never breathed through the mouth, and yet he never experienced the slightest impediment in addressing his friends.—*British Med. Journal.*

**Vivisection.**—Vivisection is a scientific necessity; and inasmuch as it is just as idle to try to stay the progress of

science as it is to oppose the rising tide on the sea shore, the attempt to suppress this particular mode of investigation cannot be ultimately successful. Notwithstanding the assertions made by men with warm and feeling hearts, it is an incontrovertible fact that nearly all we *know* of the living organism in health and disease has been learnt by vivisection, either intentionally performed or, as the phrase goes, "accidentally" accomplished. Vivisection has been accomplished in all ages and countries, more or less extensively. It is the analytical method applied to the study of organic life, just as the demolition of the earth's crust by the geologist's hammer is the analytical method applied to the study of inorganic nature. The fact that the living animal feels is an untoward contingency, but it cannot qualify the major consideration. The dissection of the dead organism is tributary or complementary, and may well be made preparatory, to the dissection of the living body; but in the long run we must find ourselves face to face with the grim truth that it is the *living* body which science requires, and sternly demands, to explore, and which sooner or later she will explore in spite of all the hindrances which sentiment and humanity may throw in her way. If vivisection is totally abolished in this country practical physiologists will have to go elsewhere. This is what has, in fact, happened since the passing of the Act, limiting vivisection. The most eminent explorers are working on the Continent and in the United States, and the only effect of persecuting them in one place is that they fly to another. It is a little vain-righteous of us to put away the evil—as we think it—with one hand while we eagerly grasp all the good that comes out of it with the other. The great bulk of the information which has enabled physicians to treat diseases with new precision in recent years, and which has already led to the lengthening of many useful lives, is the outcome of vivisection. The "anti-vivisectionist" does not stop to enquire whether the gift by which he is healed in the hour of sickness, or some other dear to him is snatched from the jaws of death, has been offered to idols! He is wise in his reticence. Now that the heat of the controversy has passed away, those members of our profession who spoke unadvisably

in the interests of a crusade against cruelty must perceive that they overstated the case when they declared, or admitted, that vivisection was unnecessary. It is indispensable and irrepressible. The aim to minimise the recourse to it was human, the attempt to abolish it altogether is absurd.

**The Modern Method of Bed-making responsible for some forms of Backache.**—James Turle, M.D., in *British Medical Journal*, says:—

"Let any one, on an ordinarily cool night, *when warm* in a bed in which he has not been tucked up after getting in, place his hand (still under the bed-clothes) at that part of the edge of the bed which is on a level with the small of his back He will feel a very cold current of air rushing in to supply the place of that which is being expelled more gently upward (relatively to the head) by the warmth of his body. Children and young people frequently lie two in a bed; and as they almost invariably lie on their sides, and generally with their faces toward each other, for antesomnial conversational purposes, the back is often near enough to the edge of the bed for the cold air-current to chill the lumbar muscles, and so to produce in them that temporary rheumatic stiffness and pain in the morning. . . . . That the modern system of bed-making (and the disuse of such contrivances as the old-fashioned sliding-boards with which our grandmothers pressed down the edges of the bed-clothes) is a very frequent cause—if not, as I believe, by far the most frequent couse—of 'backache,' can be proved by the certainty with which protection of the back from cold during the night prevents the recurrence of any trace of the pain. Such protection is best afforded, I think, by a pillow or bolster laid longitudinally at a little distance from the sleeper, between him and the edge of the bed. A 'protector' of wash-leather lined with several layers of flannel, or a small pillow, as Mr. Square suggests, and many other kinds of devices, will no doubt be equally effective in guarding the back from the cold air. All that is necessary—and, as I consider, extremely important—is the diffusion of a knowledge of the fact that in the usual way in which English people are now in the habit of lying in their beds at

night, a current of cool air flows with more or less velocity between the edges of their beds and that part of the covering-clothes which they have 'untucked' in the act of getting in. It seems to me to be highly probable that this current of cold air may be responsible, not only for the slight rheumatic pains now more particularly referred to, but also for many cases of severe lumbago, and even for some forms of acute and chronic nephritis leading to the gravest results. In any case it must be clear that though a regular replacement of the air round any person in bed is of course essentially necessary for health, that replacement should not be kept up by a current which impinges upon any one part of the body, especially so important a part as the lumbar region; further, that this air-current should be particularly guarded against in the case of persons who are weakly, and on that account both more liable to chill, and more likely to 'sleep warm,' thereby increasing the velocity of the cold draught. Coldness of the feet, and its results, insomnia and cephalalgia, are also frequently dependent on the clothes not being properly turned under at the foot of the bed."

**Olive Oil as an External Application in Diseases of the Chest.**—"While a student in Professor von Gieth's Physical Diagnosis Class in the Munich General Hospital, I frequently had occasion to notice the use of olive oil as an external application in diseases of the chest. This, if I remember rightly, Professor Gieth preferred to all other external applications, such as Indian meal, cotton wadding, flannel, or rubber jackets. Of course I am not considering the stage of those cases where counter-irritation would be necessary. Professor Gieth used a double fold of common cotton cloth, large enough to completely surround the body, the cloth he thoroughly saturated with olive oil. I think the Professor considered this generally sufficient without the addition of flannel. I have never seen this treatment recommended in any of our medical works, but in private practice very often since then I have had occasion to be grateful for this valuable suggestion, and find the use of the olive oil excellent in almost all diseases of the chest. It is

certainly very agreeable to the patient, besides being, as Professor Gieth suggests, the best means at our disposal for *retaining a steady amount of heat.* The oil softens the skin and is probably more or less absorbed, which is of itself beneficial. This application is renewed from time to time as required. The objection to the Indian-meal jacket is that it rapidly cools and is liable to wet the bed-clothing and chill the patient, thereby defeating the desired results. I am induced to mention this treatment in the hope that those who are unfamiliar with its use may give it a trial at this season of the year, when lung diseases are so prevalent."—*Dr. Parker in Boston Med. & Surg. Journal.*

**New point in the differential diagnosis of Cardiac and Pericardial Murmurs.**—"The difficulty arises only when the friction murmur is produced at or near the apex of the heart. Under this condition, cause the patient to inflate slowly the lungs; we perceive the friction-murmur to become progressively more intense, and when the inspiration is complete, by making the patient hold his breath the murmur will be steadily maintained in its maximum intensity. On expiring, it decreases gradually until the minimum is reached at the completion of expiration. It never, however, entirely disappears. The explanation of this phenomena, he claimed, was to be found in the expansion of the lungs and the stretching of the pericardium in inspiration, by which the walls of that sac were approximated more closely to the heart. The author stated that he had had ample opportunities of confirming the reliability of this sign during the year and a half in which he had given attention to it."—*Dr. Lynch in N. Y. Med. Record.*

**Time for Operating in Strangulated Hernia.**—Dr. Coskery, in *Maryland Medical Journal*, relates cases and says:—When shall we operate in cases of intestinal obstruction?—a point, as may be observed by the above cases, not so easily decided. As a guide for the future, I have laid down the following rule: Wherever the symptoms exist, together with the presence of a tumor at one of the normal sites of hernia, or where a tumor having existed for a longer or

shorter time at one of these positions, becomes suddenly, under effort more especially, larger, *operate at once*, if said tumor and symptoms are not relieved by the taxis with or without chloroform or ether. But, it may be very pertinently asked, what *are* the symptoms of obstruction, as say, by strangulated hernia? Of course we all know the classical answer, *constipation, colicky pains* and *persistent vomiting*, sooner or later becoming fæcal. But shall we wait for this *combination?* No. The cases given above show only one common symptom—*absolute and persistent constipation*—and by this term I mean constipation not only of fæces but of flatus. This being so then I would draw as a moral from my experience the following aphorism to slightly reiterate what I have said above: Given a case of *complete* constipation, together with the presence of a tumor that has suddenly appeared or increased in size in one of the normal positions of hernia, non-removable under taxis, an incision, if only for diagnostic purposes, is perfectly justifiable and is eminently proper. While this aphorism should have great weight, still it does not apply with so much force in cases of *internal* intestinal obstruction. I do not think I can do better or more fully express the objects I have in view this evening, than to call your attention to a saying of Mr. Hey, of Leeds, one of the greatest masters upon this subject: "I have often," says he, "regretted operating for strangulated hernia too late, but never too early."

**Transfusion in a case of Typhoid Fever,** COMPLICATED WITH INTESTINAL HEMORRHAGE.—Dr. Gilbert of Havre, communicated to the Académie de Médecine (*Gazette Hebdomadaire*, April 8) a case of typhoid fever which, without having manifested any special character, at the end of the thirty-first day was attended with a severe attack of intestinal hemorrhage, leading to such a state of extreme exhaustion that an injection of twenty or thirty grammes of blood was deemed advisable, and some improvement ensuing, a second injection was performed next day. A sudden and permanent amelioration followed, the delirium which had been present ceasing, and the

due action of the heart soon being re-established. Dr. Gilbert does not believe this to be an exceptional instance, and thinks that life might not infrequently be saved in this disease, by resorting to transfusion, when extreme exhaustion has been produced.—*London Medical Times and Gazette, April* 16.

**Treatment of Sub-Involution of the Uterus.**—Dr. Braithewaite has had excellent results from a plan first made known to him by Dr. Wynn Williams. A delicate whalebone applicator, armed with cotton, is dipped into a mixture of equal parts of iodine, iodide of potassium, and alcohol, and carried up to the fundus, where it is allowed to remain for a few moments. The introduction is facilitated by passing a sound beforehand. Strong muscular action at once occurs, unless there is endometritis, in which case the affection of the endometrium should first be subdued by the use of ordinary tincture of iodine or carbolic acid. This strong solution of iodine seldom has to be applied more than three or four times, as it causes a rapid reduction of the size of uterus.—*N. Y. Med. Journal.*

**Amyl Nitrite as a Cardiac Stimulant.**—Dr. Edward T. Reichert of Newark, N.J., contributes to the *New York Medical Journal and Obstetrical Review* for July, 1881, an article in which, from a critical consideration of the more important of the literature bearing upon the subject, as well as from experimental data of his own, he argues that nitrite of amyl acts as a direct stimulant upon the heart. The author admits that the increased action of the heart under the influence of the drug may be due, to a certain extent, to its depressant effect upon the pneumogastrics, as shown by Filenhe, Mayer and Friedrich, Dugau, and Brunton; but he thinks that the deductions of the first three of these observers must be accepted with allowance, because of the very indirect way in which they sought to decide this action. Dugau, whose view closely coincides with Pick's (that there is a compensatory relation between the action of the heart and the condition of the vaso-motor system, so that when the vascular channels are open the heart will naturally beat faster to overcome the excessive drainage, and *vice versâ*),

was misled by not discriminating between the action of the drug on the vaso-motor system and its effect on the heart. With the action of the vaso-motor system practically abolished (as was accomplished in Brunton's experiments, in three of which he compressed the aorta below the diaphragm and divided the spinal cord, the disturbing influence of respiration and struggles on the animal's part being done away with by means of curara), any change in the arterial tension must be the result of direct cardiac action; and in all of Brunton's experiments there was a primary and marked rise of pressure, which equalled as much as a fifth of the normal. The nitrites affect the blood pressure in two ways—by stimulating the heart directly, and by depressing the vaso-motor system, especially the centres. They are direct stimulants of the heart, increasing the frequency of its action and the amount of work done in a given time. Clinical evidence supports this view; for, were it otherwise, the action of amyl in chloroform poisoning, in collapse and syncope, and in heart disease accompanied by paroxysms of distress due to a weakening of its action, would either be *nil*, or else it would even aggravate the symptoms.

**Rupture of the Plantaris Muscle.**—In the *New York Medical Journal and Obstetrical Review* for July, 1881, Dr. A. B. Judson gives three cases in which he diagnosticated this injury. He remarks that it is seldom found described in systematic works on surgery, although its occurrence is probably not very uncommon. Its most remarkable feature is the trivial nature, or almost entire absence, of an immediate cause. Persons are attacked while quietly walking in the street, stopping suddenly under the impression that they have been shot in the leg. Apart from ecchymosis, which is met with in but a limited number of cases, the only objective signs are œdema and deep-seated induration, and these are by no means constant. If there is an obvious gap in the muscles, with an adjacent muscular tumor, the case is to be considered one of rupture of the muscles, the term *coup de fouet* being conveniently used to indicate those cases in which the exact lesion

remains undetermined. The diagnosis depends on (1) the suddenness of the attack; (2) the insignificance of the apparent cause; (3) the location of the trouble; (4) the pain, which is absent or slight when the part is at rest, and produced or aggravated by those motions of the limb, active or passive, which disturb the muscles of the calf; and (5) the great disproportion between the objective and subjective symptoms. Recovery is always protracted, and is probably not much facilitated by treatment, which, however, should not be neglected, for the prognosis is sometimes unfavorable, especially when the affected limb is the seat of deep varicose veins, or shows traces of former phlebitis. Local and general remedies should be directed toward the relief of pain. Repair of the injured structures should be promoted by preventing motion or disturbance of the part affected. The condition which seems best adapted to secure this object is that of enforced fixation with the knee moderately flexed and the ankle moderately extended. As recovery progresses, locomotion will be facilitated by a high-heeled shoe, which prevents the foot from being unduly flexed on the leg. Cases of this injury present opportunities for the exercise of judgment in the decision of the question of abandoning further rest and resorting to motion and exercise.

**Obstetrical Experiences.**—Dr. David M. Williams of Liverpool, in an abstract of 2,500 confinements "chiefly among the comfortable middle classes," states that he considers the forceps a great boon, always to be used with comfort and safety, without injury to the mother, and in only one case did he find craniotomy necessary. For over twenty years he has introduced the forceps into the uterus, often saving the child by that means, when the os was very narrow, but dilatable. He had only employed chloroform in the first stage to overcome rigidity; in the second stage he often administered it till complete unconsciousness was produced, believing that the perineum may thus be frequently saved from rupture, an accident which will sometimes occur after every precaution. He has cured a complete rent, involving the sphincter, without operation, by

rest, local cleanliness, and the induction of temporary constipation by opium. He trusts in ergot especially as a preventative of flooding in cases where the pains are weak and the intervals long. He denies, on the evidence of distinguished travellers contrasted with the records of contemporary British practitioners, that puerperal mortality is the result of civilization. The truth is quite the other way, and by acting on increased knowledge, more lives will yet be saved.—*British Medical Journal.*

**Antiseptic Stimulation in Typhoid.**—Prof. Bouchard (*Le Concours Med.*, May 7) recommends that stimulants used in typhoid fever should be mixed with antiseptic substances, in order to prevent purulent infection from the intestinal lesions: for instance—

| | | |
|---|---|---|
| ℞. | Rum, | ℥ ix |
| | Creasote, | gtt. ij |
| | Phenic acid, | gr. iv |
| | Salicylic acid, | gr. xv. M. |

Small quantities of this or of a similar antiseptic stimulant may be given as required.

**Iodine as a Specific in Croupous Pneumonia.**—Iodine or iodide of potassium is, according to Schwarz (*Deutsche Med. Woch.*, Band vii., No. 2, 1881), a specific in simple uncomplicated croupous pneumonia. If given during the first twenty-four to thirty-six hours from the onset of the initial rigor, it will arrest the further progress of the disease. In illustration of this view, ten cases are recorded in which the crisis occurred before the end of the second stage, and in one case at the end of the first day. The following are the formulæ adopted by Schwarz: Tincture of iodine, 5 drops; water, 120 grammes (4 ounces); one tablespoonful hourly. Iodide of potassium, 1½ grammes (22 grains); simple syrup, 30 grammes (1 ounce); water, 120 grammes (4 ounces); one tablespoonful hourly.—*London Med. Record*, May 15, 1881.

CANADA

# Medical and Surgical Journal.

MONTREAL, JULY, 1881.

## THE LAVAL UNIVERSITY ACT.

Laval University has obtained the bill from the Quebec Legislature. Although a very vigorous opposition was offered to its passage, yet, knowing as we all do the great influence of this University at the seat of Government, no one was surprised to find that she came out victorious. When it was found that the status of her teaching branch in this city was impugned on very high legal authority, she clearly saw that something must be done. In noticing some time ago the adverse opinion obtained from Sir Farrer Herschel by the School of Medicine of this city, we stated that, the matter being before the courts, discussion was out of place and that all should await the decision of the legal tribunals. This course, however, Laval herself has not been content to follow; but, on the contrary, has forestalled a decision, by clothing herself with powers derived from our local government. The question, however, cannot be considered by any means settled, and we think that it will still remain for the courts to say whether this University can legally possess such powers, which are superior to those ever before granted to any similar institution, in this country or any other. During the debates before the Parliamentary Committee, it was strongly urged that the Quebec Legislature, in conferring general powers upon Laval, would be acting *ultra vires*, and that its action could therefore be annulled; and since the passage of the Act we have heard several rumours of an intention to endeavor to procure its disallowance by the Dominion Government, on the grounds of an interference with a Royal Charter. It is certainly

entirely subversive of all our preconceived ideas of the important and privileged nature of a Royal Charter, that any local administrative body in the country shall be permitted to add to or take from it, at its own unchecked discretion. And such questions as these at once arise,—questions of vital importance to every other University in the Dominion. Of what use is a Royal Charter? What is to limit the changes and amendments which the local Government may choose to make thereto? If they have the power to add to, why not power to curtail? In fact, if the Laval Bill is to be maintained as law, then every University simply continues to act apparently by virtue of a Royal Charter derived from the source of all authority, but in reality only by the sufferance of the respective local Parliaments. Then again, even supposing it to be possible to obtain alterations in a Royal Charter without the express sanction of the Imperial Crown, is it expedient that a sort of roving commission should be granted to any one University to open branch establishments wherever it may see fit? Certainly it is not, and there are many valid reasons which will occur to every one why this should not be done. It is contrary to all established usage. A University is supposed to have a special seat and to belong to that seat once and forever. The great Universities in England, for instance, never have had, and never will have, permission granted them to functionate in any other place but in that which is designated in their charter as their special seat. The University of London cannot set up a *succursale* in Cambridge, nor can Oxford start an opposition to the University of London. Each has been accorded its own sphere and to that alone must they each confine themselves: and so it should always be. But under our present Laval Bill, this University is at liberty to erect faculties in all the branches in any part of the Province, independently of any previously made arrangements for furnishing such districts with the benefits of the higher education. It will be observed that this is an entirely different thing from affiliation. It is quite right that independent colleges in various parts should have the means afforded them of affiliating themselves with some University; but it is equally not right that any one body

with University powers should be able to set itself down at the doors of any or every other similar institution in the country. It is equivalent to destroying colleges which may be performing, in their own locality, a useful work, and supplanting them by offshoots from a powerful and ambitious corporation, which will soon possess in a way a monopoly.

We have considerable sympathy with those who have opposed the Bill on principle, and should be satisfied, in the interests of University education generally, to see them successful in causing its repeal; but at the same time we would not be understood as placing ourselves in any attitude of hostility to the school teaching medicine here under the ægis of the Laval University. If there is a demand for two French schools of medicine in Montreal, by all means let us have them. But we cannot see that, in order to provide for this, it can be right to sacrifice the principle of the inviolability of a Royal Charter, and submit to its being interpreted and changed in its most fundamental parts, by a body very far removed from the august authority which alone is really capable so to do.

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## ONTARIO MEDICAL COUNCIL EXAMINATIONS.

This subject has of late caused some excitement in medical circles in Ontario. It appears that at the late examinations some 57 per cent. of the candidates were rejected. The majority of the rejections occurred in one subject, "Surgical Anatomy," some of the best men failing to pass in this, although receiving, in other subjects, the aggregate of 70 to 80 per cent. The rejected men, of course, as is usual in such cases, attributed the "slaughter" to unfairness of the examiner, and without reflection or due consideration, in a petition to the Council, made certain absurd accusations against the examiner, Dr. Sullivan. This petition, at the last meeting of the Council, the rejected ones had the good sense to withdraw, and the question of investigating the accusations against Dr. Sullivan was therefore dropped, though he himself anxiously desired that the papers should be examined by some competent and unbiassed person.

Now, there are generally two reasons which exist for a large percentage of rejections at any examination, viz., a too stringent examination and an insufficient state of preparation on the part of the candidates owing to want of proper teaching. Perhaps both these causes were to blame in the present case. We have seen the paper in surgical anatomy, and certainly think that a mere book knowledge of anatomy would not pass a man in it. It is a very practical paper, and one which needs a dissecting-room knowledge of anatomy, to answer properly. Probably those gentlemen who obtained the 70 or 80 per cent. in the other subjects would have taken the same high marks in theoretical anatomy, but when it came to actual dissecting-room work, they failed, because their knowledge of anatomy was, to use Herbert Spencer's expression, "not immediate, but mediate." No first class man should have been rejected on the paper, and their being so rejected merely shows that their dissecting-room training was sadly neglected. Mere lectures on anatomy are well enough, and ensure the whole of anatomy (minute and gross), being gone over once a year, but they should not, and never were intended to, take the place of actual work on the cadaver and with the microscope. On the other hand, perhaps the paper was a little stiff for an ordinary pass man for a license, and we fancy that many members of the College Council would themselves have found the answering of such questions anything but plain sailing. Most of the questions are those commonly asked at the membership examination of the Royal College of Surgeons. We are glad to see that Dr. Sullivan has been made Examiner in Descriptive Anatomy. Hereafter, no doubt all the inferior men will be stopped at this first fence, and the rest will easily, the next session, surmount the surgical anatomy five-barred gate.

## CANADA MEDICAL ASSOCIATION.

Arrangements for attending at the meeting of the Association to be held at Halifax on Wednesday, August 3rd, have been satisfactorily made by the officers of the Society. In the first place, by those wishing to travel as rapidly as possible, the Inter-

colonial Railway will naturally be selected. The Minister of Railways, Sir Charles Tupper, has kindly offered to grant return tickets to members for *one fare*. This will, however, apply only to physicians themselves, and will not include members of their families. Those going from Montreal will thus be enabled to leave home on the evening of Monday, the 1st August, reaching Halifax on the morning of the first day of the meeting, and can be again in Montreal on Saturday or Sunday morning following. Pleasanter, however, is the water route. To arrive at Halifax in due time, it will be necessary to take the Gulf Port steamer from Quebec on Tuesday, July 26th, which reaches Pictou on Saturday, the 30th, thence to Halifax on Monday. If desired, a pleasant change of route can be made by crossing by steamer either to Portland from St. John, or directly from Halifax to Boston. In any case, it will be well, after deciding upon the route to be taken, to communicate with one of the local secretaries, or with the acting General Secretary, Dr. A. H. Wright of Toronto, from whom all information concerning rates, &c., can be procured. The names of the Local Secretaries for this year are as follows: Dr. Lawson, Halifax; Dr. P. Inches, St. John; and Dr. G. A. Belleau, Quebec. We know, from previous experience, how dilatory readers of papers are in sending in the titles beforehand, all invitations so to do to the contrary notwithstanding, and how, even at the last moment, fresh additions are made to the literary entertainment. Still, so far seven papers have been notified to the Secretary. They are as follows:—

1. "Diseases of the Eye in relation to General Diseases," by Dr. Coleman, St. John.
2. "Local Treatment of Empyema," by Dr. Oldright, Toronto.
3. "The Stomach Pump," by Dr. Grant, Ottawa.
4. "On the Theory of Intra-pleural Râles," by Dr. Osler, Montreal.
5. "Antiseptic Treatment in Ovariotomy and Knee Excisions," by Dr. Fenwick, Montreal.
6. "Vaccination with Calf Lymph," by Dr. Bessey, Montreal.
7. "Treatment of Scarlatina Maligna by Cold Water and Ice," by Dr. Worthington, Clinton, Ont.

We shall hope for a successful and a pleasant meeting, and once more urge upon all who can to attend.

McGILL SUMMER SESSION.—On the 30th June closed a very successful Summer Session. The lectures on special subjects, and the Hospital and Dispensary Practice were largely and zealously attended. On the 29th and 30th a special examination was held in Clinical Medicine for a prize offered by Dr. Osler—viz., a microscope, valued at $50. The following was the scheme of the examination, which was conducted by Drs. George Ross and Wm. Osler :—

I.

WRITTEN PAPER, 1½ HOURS.

1. A man, aged 40, comes to you complaining of headache, vomiting and dimness of vision; pulse 70, temperature normal; general health has been tolerably good; present illness came on after a few days indisposition.

State (*a*) your method of procedure in the examination of patient, (*b*) the conditions which might bring about such symptoms, and the points to be attended to in distinguishing between them.

2. How would you proceed to map out the liver dullness? State its normal limits. Mention conditions associated with (1) increase, (2) diminution of its area.

3. Distinguish between the conditions you have met with during the Session accompanied by a dull percussion note in one infra-scapular region.

4. Sketch the main features of any case of heart disease which you have studied during the Session.

(150 marks)

II.

A case to diagnose and prepare a written report upon. Condition of *fundus oculi* and *larynx* to be given—*one hour.*

(150 marks)

III.

Examination of sputa, vomit, fæces and urine; chiefly microscopical—*twenty minutes.*

(50 marks)

Mr. R. J. B. Howard, B.A. was the successful candidate, obtaining 322 out of possible 350 marks.

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THE CAUSES OF TUBERCULAR PHTHISIS.—Dr. Playter of Toronto is anxious to collect together statistical information concerning the history of cases of phthisis in the Dominion of Canada. He has therefore prepared a schedule of questions, which he will forward to physicians having such patients under their charge,

and who may be willing, *pro bono publico*, to take the trouble of filling them up. We willingly draw the attention of our readers to this announcement, as the systematic grouping of a large number of facts of this kind is sometimes capable of leading to results of real practical service. Any gentleman, therefore, willing to assist, and sending his address to Dr. Playter, Toronto, will receive copies of the list of questions, which, on completion, are to be returned to Dr. P.

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—The *Popular Science Monthly* for July has the following interesting articles :—The Races of Mankind (illustrated), by E. B. Tylor, F.R.S.; European Schools of Forestry, by N. H. Egleston ; Production of Sound by Radiant Energy (illustrated), by A. G. Bell ; Physical Education, Sleep, by F. L. Oswald, M.D.; The Development of Political Institutions, Consultative Bodies, by H. Spencer ; On Fruits and Seeds (illustrated), by Sir John Lubbock, F.R.S.; How to Prevent Drowning, by H. MacCormac ; Recent Advance in the Law of Intellectual Property, by B. V. Abbott ; Improvements in Electric Lighting, by W. H. Preece ; Degeneration (illustrated), by Dr. A. Wilson ; The Phenomena of Death, by T. D. Spencer, M.D.; Union of the Telegraph and Postal Service, by A. B. Huet ; Sketch of Dr. C. T. Jackson, with portrait ; Editor's Table, Literary Notices, Popular Miscellany, and Notes.

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## Medical Items.

PERSONAL.—The following members of the Canada Medical Association have sailed for England, and will be present to represent this country at the International Medical Congress to be held in London early in August: Drs. R. P. Howard and W. Osler, of Montreal ; Dr. Grant, of Ottawa ; Dr. Roseburgh, of Toronto.

—Messrs. Henry C. Lea's Son & Co., will issue at an early day a new edition of Holmes' System of Surgery, *Americanized.* This work has already won such confidence in the former or English editions, that now it will have a far higher value in the

revised form. In the list of American editors we note the names of many of the most distinguished members of the profession on this side of the Atlantic. We look forward with much interest to the issue of this great work.

—Dr. J. B. Stewart is suing, at Shelbyville, Ind., for a divorce from his wife, on the ground of cruel and inhuman treatment. Having a large practice, he is frequently called out at night. His wife, being jealous, refused to believe that all his absences from home were professional, and demanded that he should stay in of nights. He said his patients would not stand neglect. Then she adpoted the plan of taking poison whenever he had a night call, thus compelling him to remain and doctor her. She swallowed a deadly drug in this way several times, and her life was saved with difficulty. The husband claims that such conduct is a just cause for divorce.—*Arkansaw Doctor.*

THE GOUT.

When Munden at his house some time ago,
Warn'd a large party from his gouty toe,
A heartless fopling drawled a long "Dear me!
"I can't imagine what the gout can be."
"Then, boy"! said Joe, with pain distorted phiz,
"I'll give you some idea what it is:—
Suppose your foot fast in a blacksmith's vice,
Then turn the screw, perhaps just once or twice,
Till you the height of agony procure,
That human nature's able to endure,—
The pain of rheumatism, you thus find out,
Give it another turn, and that's the gout."—ANON.

—There was a sensation in the auditorium of Professor Virchow, of Berlin, in the early part of this month, when a lady, whom the distinguished physiologist introduced to the students as "a colleague from America," quietly took her seat among the young men and prepared to take notes of the coming lecture. The lady, who, as a German paper acutely remarks, was somewhat older than the average of the students and consequently caused no enormous excitement, made "a throughout agreeable impression. She was simply dressed and there was nothing of

the blue-stocking about her." Other Universities, like those of Leipsic, Zurich and Geneva, have received women as students for several years, but this American lady, whose name is not given, is the first who has adorned the musty, fusty lecture-rooms of the University of Berlin.—*Ex.*

—A Philadelphia quack tells the public: "If a patient wants it gentle and mild, I'm a homœopath; and when anybody wants thunder and lightning, I'm an allopath."—*Ex.*

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