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# CANADA

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## THE UNIVERSITY IN RELATION TO PROFESSIONAL EDUCATION.\*

BY PRINCIPAL SIR J. W. DAWSON, C.M.G., LL.D., &c.

*Mr. Chancellor, Gentlemen of Convocation, Ladies and Gentlemen:*

The subject of this lecture has been selected on account of its interest and importance at a time when the educational and professional privileges hitherto possessed by the English-speaking minority in the Province of Quebec are threatened with curtailment or extinction; but I shall treat of the subject in its more general aspects as well as with reference to the present crisis.

The original relation of the universities to professional education is probably that which depends on the fact that certain professions are and have been recognized as learned professions which require for their adequate prosecution not merely an apprenticeship to a master, but also a preliminary general education and a particular education of a professional character, carried on by specialists and rising above the possibilities of a mere apprenticeship.

It is scarcely too much to say that but for the requirements of the four great professions of the Christian ministry, education, law and medicine, the older universities would not have been organized or sustained, and in modern times a variety of professions, depending for their prosecution on a training in scientific principles and processes, have been added to these, for which the university must provide. This, let it be observed, is not in the interest of the university or of the professions as such, but of the

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public, which is served by the professions. It is in order that there shall be provided, for the benefit of the community, a succession of suitably educated and trained men to sustain the character and efficiency of those higher professions which must be efficiently provided for in every civilized community.

#### THE PROFESSION OF THE EDUCATOR.

Let it not be forgot, that in this aspect of the matter, the educator is himself a professional man, and that this profession of education is the highest of all from a civil and social point of view, and must be maintained by the State in the highest possible state of efficiency for the benefit of all the other professions to which it is subsidiary. Nor is this a mere theory. It is sustained by the practice of all civilized nations. The profession of the educator has been supported and regulated by the Government in a manner more careful and thorough than any other profession whatever, and the importance of this is daily more recognized in all the more advanced communities. In this respect the large sums given out of the public chest to support teachers, and the institution of special governmental departments for their encouragement and supervision, testify to the fact that education is recognized as the fundamental profession. It is, I know, pretended by some persons in this country—(I say pretended, for I believe it is a mere pretence, intended to influence the more ignorant)—that the care of the state should be limited to the support of merely elementary schools. But the experience of all the more advanced countries shows that such limitation is not consistent with the welfare of the community, and least of all with that of the poorer portion of it; because if the higher education is left entirely to private enterprise it may become a luxury of the wealthy, so that the poorer man not only loses its benefits, but the state loses the advantage that might accrue from the training of such high talents as God may bestow on the children of poor men.

The higher education is sometimes compared to the apex of a pyramid or to the ornamental capital of a column, but the comparison is only in part correct, for this kind of education furnishes the only adequate means of strengthening and broadening the

popular culture by the provision of skilled and educated teachers, and by that reflex influence which an educated class necessarily exercises on the whole community. A more fitting and accurate analogy would be with the mutual relations of the leaves and roots of a tree or that old apostolic one of the mutual relations of the head and members of the body, all knit together by mutual interest and each contributing its part to the life and growth of the whole.

The appreciation of this great principle is testified not only in the mother country but in all the colonies that she has sent forth. The foundation of the two great New England colleges of Harvard and Yale dates from the beginning of those colonies, at a time when they were passing through a hard and desperate struggle for existence. The bequest of John Harvard, a minister of Charlestown, in 1638, is believed not to have exceeded eight hundred pounds, if it amounted to so much, with 260 volumes of books, and it could be supplemented only by a smaller one from the State, and by gifts, some so small as a few shillings, from the poor immigrants then almost houseless and nearly penniless. Yet that was the beginning of the educational and scientific greatness of New England. All the later colonies in turn, and eminently those in the great island continents of the South which were unknown in the time of John Harvard, have emulated the example of Massachusetts, some of them on a magnificent scale. Harvard, like the old colleges of Europe, began its life as an institution mainly theological, but like them it has steadily developed in the direction of professional and scientific training, and most of the newer colleges and universities have been professional as well as general schools from the first.

#### PROFESSIONAL FACULTIES OF M'GILL.

McGill University has, I need not say, adhered to the traditional policy of the older universities. Its medical faculty took the lead, and, as the Montreal School of Medicine, preceded the organization of the other faculties. From the first its staff of professors and hospital facilities made it the principal school of medicine in Canada, and it has kept this leading place ever since. With us it was followed by the faculties of arts, law and applied

science, and by the affiliation of four theological colleges, so that our faculty of arts or academic faculty proper is now surrounded by the buttresses afforded by all these faculties and colleges, as well as by the admirable college for teachers, which is furnished by the McGill Normal School, and I think we are now taking the lead of all Canadian colleges in provision for the independent higher education of women. The extent of our professional work is measured by the fact that our university lists include, without reckoning those removed by death, about 890 Doctors of Medicine, 376 Bachelors of Civil Law, 102 graduates in Applied Science, and no less than 1,196 teachers. We have, perhaps, no right to include the graduates of affiliated theological schools; but I am informed that in the present session these have about 150 students, so that a great work is being done by them in preparation for the Christian ministry and is materially aided by the university. In the present session, of nearly 600 students on our university lists, at least 350 are professional students, while many others are preparing to enter on professional study.

That we have been able to do all this almost without State aid, and without any jarring or conflict of the many and diverse interests involved, is, I think, a source of justifiable congratulation. I do not say of pride, for I feel that while we have been enabled to do much, there is still much to be done, and that we still fall short of adequate provision for the wants of our time and country. My real feeling is, and always has been, one of regret that our means of instruction do not grow more rapidly and are still so inadequate.

#### OUR POSITION IN THIS PROVINCE.

The question of professional training has recently assumed a new aspect in the Province of Quebec. From the first we have had the difficulty that the law of this Province, unlike that of any other civilized country known to me, refused to recognize the degree in arts as an adequate guarantee of a liberal education, and thereby took away from our young men one inducement to avail themselves of the higher education provided for them here by the endowments of our universities. But to compensate for this, the courses of professional study were left un-

trammled, and certain important privileges with reference to practice were conceded to the professional degrees.

Since Confederation, the power of educational legislation has been wholly in the hands of the Provincial Legislature, with only the restriction that it has no right to withdraw from the English and Protestant minority such privileges as it possessed before Confederation. For some years this guarantee was respected, and it has not been directly infringed. But recently excessive and arbitrary powers have been given to some of the public bodies representing the several professions, whereby they may exercise complete control over the professional courses of the universities, and may, if so disposed, practically destroy the educational institutions of the minority. It is also understood that similar powers are desired by other professional bodies. I refer only to the minority, because as the great majority of the professional men have been educated in the Catholic colleges, these institutions and the professional education connected with them may be considered comparatively free from attack.

In effect, the tendency of recent legislation in this Province has been to destroy the guarantees of the minority indirectly, by conferring powers not possessed by the Legislature itself on irresponsible professional bodies which, though they bear different names, we may designate as professional boards or councils.

I do not propose to enter at length here into the discussion of these grievances, but desire emphatically to state my conviction :

1. That the system of education, general and professional, pursued by this University is that required for the interest of the English and Protestant population of this Province, though different in many of its details from that in use among the majority of our people.

2. That no benefit can result to this Province from the extirpation of the English system of education.

3. That the measures recently pursued and tending to this result are contrary to the guarantees given at the time of Confederation and unjust to a very important section of Her Majesty's subjects in this Province.

If we turn now to the essential elements of the question before us, we shall find that these resolve themselves into two portions :

- (1) The preparatory education required for entrance into professional study, and which is not itself professional, but general;
- (2) The strictly professional courses of study which the University provides, and the value to be attached to the professional degrees bestowed by the University on examination at the close of its course of study.

#### PREPARATORY TRAINING.

With reference to preparatory education, the surest and best guarantee that can be exacted as to this is the possession of a degree in arts. In many parts of the world the attainment of such a degree is required as a necessary preliminary qualification, and everywhere except in the Province of Quebec it is acknowledged to be sufficient. The reason of this is evident. A student who, after qualifying himself to matriculate in the faculty of arts, enters on a regular and systematic course of study extending over three or four years, passing in the course of this time probably six or more rigid written examinations, each of which marks a step in his mental development, and finally graduating as Bachelor of Arts, possesses evidence of a good training which no examination of a professional board, however severe in appearance, can possibly secure. It may be said that the degree may be obtained in some quarters on easier terms than in McGill, but I have no hesitation in maintaining, from my own personal knowledge, that the statement made above is true of every British and Canadian University, and that the degrees of all might be accepted with perfect safety. Nay more, the examination in the middle of the college course, and which we call the "Intermediate," would afford an ample guarantee for a liberal education, and Ontario goes so far as to accept even the examination for entrance into the faculty of arts, which in my judgment is equal to anything that any of our professional boards can obtain by their special examinations. The absurd and unwise policy of our professional councils in this one respect has, to my certain knowledge, tended to discourage liberal education, and to fill the professions with under-educated men, more than any other cause whatever, and it has opposed a most serious obstacle, and one not existing elsewhere, to the development of

our higher academical course. It presented this aspect to me when I came to this country. I was then surprised to find such a discouragement to higher education in a British colony, and I find, on reference to our minutes, that I directed attention to it publicly thirty years ago. As a consequence of this disability, I find that in our own lists of nearly 900 medical doctors, only 65 have the arts degree; of 376 bachelors of civil law, only 53 have the degree of B.A.; and of 100 graduates in applied science, only 7. All the rest have gone into their professions with lower grades of educational preparation, and this has been the work, not of the University, but of the professional councils acting in opposition to its interests. In this matter of the validity of the degree of B.A., not only are the graduates of McGill and Bishop's College interested, but those of Laval as well; and Laval is the more concerned, in that it has recently established an Arts course in Montreal as well as in Quebec.

But while I hold that the degree of B.A. should be accepted, and thankfully accepted, as a qualification for professional study, I do not believe that this country has yet attained to a stage in which it can be made imperative. It is still probably necessary to take on examination candidates who have merely received the education of colleges and academies not having the power of giving degrees or of training up to the university standards. Here it may be useful to state a few distinctions. The education which can be given by a high school or collegiate institute is not that of specialists, but of general teachers. It furnishes a good foundation for subsequent culture, but has not that finish and completeness which can be given only by study under men who are eminent specialists in their own departments. This is the particular sphere of the higher university work. Farther, if a degree were exacted as a necessary qualification this could inflict no injury on the preparatory schools. They are the only avenues of entrance into the university, and the greater the number who go on to the faculty of arts, the better. It would be a suicidal policy on the part of high schools to cultivate the idea that no further education than their own is useful, since by doing so they would limit their own function and diminish the number of those who will take their full course. Yet for some mysterious



reason it has been held by the friends of certain so-called colleges in this Province that it is an injury to their alumni to acknowledge the standing of men who have taken a higher and more complete course, and this unreasonable jealousy has hitherto prevailed with the Legislature.

Supposing, however, that a large number of candidates for professional training cannot or will not subject themselves to the discipline of a regular university course, and that an examination should be provided for them, this should at least be fair, and connected with the general educational system. The professions are not themselves educators. They depend for preliminary training on the different and equally elevated profession of the teacher : and the teacher works under a system carefully planned and administered under the public educational authorities. But in this Province both the functions of the teacher and the Department of Education have been usurped by professional councils under improvident and reckless legislation. Every profession settles for itself the subjects of its examinations independently of other professions and of the programme of education fixed by law. Thus the teacher, instead of being able to pursue a definite and proper system under the regulations imposed on him, is made the sport of every candidate for this or that examination, has his time frittered away, and finds himself obliged to become a mere crammer for different examinations instead of being truly an educator. This is an intolerable evil at present inflicted by the professional bodies upon the young men and the teachers of this Province, and through them on the community as a whole ; and if in defiance of common sense, sound policy and the public interest, they continue to demand such powers for the purpose of protecting them against the competition of better educated men, a special tax should be levied on them to pay for the costly protection which they claim ; but even this could not compensate the public for the injury inflicted on education.

But another element of injustice is introduced into this monstrous abuse by the fact that the educational system of the French majority is favored by the professional boards, and that of the English minority unduly discountenanced. The evils of this may be briefly stated as follows :—

1. The Protestant population possesses, under legislative sanction and under the control of the Protestant Committee of the Council of Public Instruction and of the Department of Education, a complete course of study, extending from the Elementary schools to the Universities. In this course, definite and rigorous examinations are conducted in every grade by the best examiners the Province can afford, and it is believed that this system provides an education equal to that exacted in any for entrance into the study of the learned professions. The certificates and degrees based on this course of study and its examinations are now accepted for the above purpose in the other Provinces of the Dominion, and also in the medical and law schools of Great Britain and Ireland. The fact that they are invalid within this Province is a discouragement to good education, an injustice to young men endeavoring to prepare for professional study and a most unmerited disparagement of our educational institutions.

2. It is held that the councils of the several professions should content themselves with fixing the stage in the general education provided under the educational law, which may be necessary for entrance into professional study, and should allow the attainment of this to be ascertained by examiners under the two committees (Roman Catholic and Protestant) of the Council of Public Instruction. Should the professional bodies desire any amendment in the course of study, this can best be attained by application to the educational authorities charged by the law of the Province with this duty. In other words, the work of general education belongs to the authorities specially charged with it by law, and any modifications desired by the professional bodies should be obtained through these authorities.

3. Special injustice is inflicted on the Protestant population when only one preliminary examination exists, and this based principally on the educational methods of the majority, which are in many respects dissimilar from those of the Protestant schools, even when the names designating the subjects are the same. This is aggravated by a scale of marking attaching great comparative value to subjects such as "philosophy," as taught in the system of the majority, and to which Protestant educators

do not attach so much importance as a part of preparatory education. It must be borne in mind that the methods and results of the two systems of education existing in this Province are different even in subjects nominally the same, and that philosophy in the English Protestant system is a subject taken up by students of mature minds in the higher part of the university course, whereas in the French schools it consists of study of a text-book based on a system not acknowledged by Protestant educators.

4. Whatever opinions may be entertained as to the relative values of the Roman Catholic and Protestant systems of education as existing in this Province, it is certain that both are recognized by law, and that in the Confederation Act guarantees were given to the minority that its system would not be interfered with or rendered invalid for practical purposes. It is believed also that the Protestant system has proved itself at least equal to the other, even under the present disadvantages. It is not desired here to insinuate anything distasteful to the majority. They have a right to adopt the system which suits them. We only affirm that our system is the best for us, and that as it is recognized by law, we have a right to have it respected.

This matter of preliminary education has been well put by my friend Dr. Heneker, the Chancellor of Bishop's College, in the following terms:—

“ But it is well known that the Roman Catholic and Protestant theories of education in this Province differ widely, and have so differed for many years before, as well as since, Confederation. It is only necessary, in proof of this assertion, to point to the two committees of the Council of Public Instruction entrusted with the oversight of public education in this Province. Applying this recognized fact to the case in point, of the powers given to the general council of the Bar to prescribe a programme of study, and it will be seen that this programme may be, and most likely will be, based on the Roman Catholic theory of education alone.

“ A mere enumeration of subjects taught in the schools and colleges might lead a superficial observer to believe that the same system is in force in the schools of each class of the popu-

lation, but the practical educationist knows that, even in the study of Latin, Greek and Mathematics, different systems and different text-books prevail, and that in History, Philosophy and some other subjects, fundamental differences exist.

“ Apart from the different method of teaching, and the difference in text-books used in Roman Catholic and Protestant schools, Roman Catholics give a certain amount of training in their colleges in philosophy. I am not aware to what extent this is carried, but I am informed it differs materially from the treatment of the same subject in the Protestant universities, where it forms with Logic and Rhetoric a part of the B.A. course. It is, however, not taught in Protestant academies or high schools. It is treated as an advanced subject, and forms, as above stated, part of the university course.

“ It is not, therefore, unreasonable to conclude that the Bar act of last session, by the provisions above referred to, unintentionally no doubt, but not less really, did strike a blow at the system of education in vogue amongst the Protestant minority, and infringed on the rights and liberties of Protestants as guaranteed, or supposed to be guaranteed, at Confederation.

“ It may be claimed that the Roman Catholic members of the General Council have never infringed, or intended to infringe, on Protestants' rights or privileges, and have invariably treated their Protestant *confrères* with courtesy and liberality. I believe this to be true so far as intention goes, and I am the last man in the world to raise a religious or sectional cry amongst a population so mixed as that of this Province. But I hold that such grave matters should not be left to good-will or good intentions. All that is claimed by Protestants is to have equal rights with their Roman Catholic fellow-citizens, and the best way to secure good-will is to have the terms of the agreement strictly defined. What is needed, therefore, is that there shall be two separate Boards of Examiners for the examination of candidates seeking to enter on the study of any or all of the professions—one of these Boards to be representative of the Roman Catholic system of education, the other of the Protestant system.

“ In this way, candidates will be examined under the system of the schools in which they have been educated, and the rivalry

will be without jar, leading to no feeling of injustice or want of harmony.”

But lest these should be regarded as *ex parte* statements, and in justification of the strong language used by Dr. Heneker and myself, I may further quote from an official document put forth under the authority of the Protestant Committee of the Council of Public Instruction, and prepared by its secretary, who is also the English departmental secretary, and perfectly conversant with the facts:—

“Under legislative sanction the Protestant committee has put into operation a complete course of study, which leads by regular steps from the lowest class in the Primary school through the Protestant Superior schools to the last year of the University course. This is a thorough course, similar in its extent and requirements to that followed in the sister Provinces of the Dominion, in the United States, and in England. In the superior schools where this course is followed the young men from the Protestant section of the population receive their education, and they have a right to expect that, after they have completed a course sanctioned and subsidized by the Legislature of the Province, their course of study will be recognized in any provisions which the Legislature may make for literary examinations. Protestant young men find, however, on presenting themselves for the examination for admission to study prescribed by the Council of the Bar that the examination is based upon the course of study followed in the Roman Catholic Superior schools, and that their own course of study has not been considered.

“These disadvantages and difficulties under which candidates from Protestant Superior schools are thus placed arise from three prominent differences in the courses of study followed in the Roman Catholic and Protestant institutions.

1st. There is a difference in the subjects included in the two courses. For example, the subject of “Philosophy,” which forms a prominent feature in Roman Catholic Superior schools, is entirely unknown as a school subject among Protestants.”\*

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\* The usual text-book in the Catholic colleges is the “Manuel de la Philosophie Chretienne,” by Sanseverino, a work which I would commend to the notice of those desirous to form a judgment of the probable tendencies of education in Quebec.

2nd. The order in which the several subjects of the course are presented to the student is quite different in the two courses. Elementary mathematics, which comes in at a very early stage in Protestant schools, is postponed to a much later point in Roman Catholic institutions.

3rd. There is a marked difference in the two courses as to the relative importance attached to the different subjects, as indicated by the marks given for the several subjects and by the percentage required to pass according to the Bar examination. For Philosophy, 250 marks are given and half marks are required to pass, whereas for the five subjects—Arithmetic, Algebra, Geometry, Chemistry and Physics—only 250 marks are given, and one-quarter of total marks and one-seventh marks in each subject are required for passing. Such a system of marking bears very heavily upon candidates from Protestant Superior schools which give prominence to the last five subjects and omit Philosophy.\*

“It is evident from these references, which could be multiplied, that the action of the Council of the Bar and all similar action is a serious interference with our Protestant Superior schools. Under the circumstances it seems only right and reasonable to demand, on the part of these institutions, that these difficulties be removed, either, first, by providing two separate examinations based upon the courses of study followed in the Roman Catholic and Protestant institutions respectively, or, second, by having one examination so far as the courses of study are in common, and allowing options when the two courses diverge.”

I may here close the case of the English and Protestant professor and teacher against the tyranny of those who should be professional brethren, and may, I think, appeal to the sense of justice of all men as well as to the sympathies of friends of education, and of those who regard those great interests of our country which are to be secured by the mental culture of its people and by a high standard of professional training.

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\* At a recent meeting the Council of the Bar, while refusing all other amendments, has condescended to say that a smaller number of marks in “Philosophie” shall be exacted of the Protestant candidate.

## PROFESSIONAL COURSES AND DEGREES.

With reference to that training which is more properly professional, the University may be supposed to have less direct concern, and here it is admitted that the several professions have each a right to assert a control which has no place in the matter of general and preparatory culture. Admitting this, a proper regard should still be had to the function of the University as the only body prepared to give the higher culture required for professional life at the present day.

## THE FACULTY OF MEDICINE.

This may, perhaps, best be defined by considering first the work of the faculty of medicine as existing in this University. In this faculty there is a course of study and practice extending over four years, in which the student has the benefit of the instructions of fourteen professors, all of them men of high standing and specialists in the subjects which they represent, besides several skilful tutors and assistants. He has also a long course of clinical instruction and the use of well equipped laboratories, and he is subjected to rigorous examination in each year of his course and must make good every step by passing such examinations. This school, attended by more than 230 students from all parts of the Dominion, receives no aid from the medical profession as such, nor any from the Provincial Treasury, and little from any source except the fees of its students and the endowments given by liberal friends of education. Its building is provided by the University. Its course of study has been kept up to the level of the highest schools of other countries by the zeal and devotion of its professors, and the training which it gives enables its alumni to take their places with the best graduates of the best schools abroad. Its degree has heretofore been recognized as entitling to receive a license to practise without any farther examination, and this privilege it is entitled to retain under the Confederation Act, unless it can be proved that its course of study has fallen off since Confederation, which is, however, in every respect the reverse of the fact.

The Medical Council, or College of Physicians of this Province, now has in contemplation legislation with the view of interfering

with the course of study in the English medical colleges and assimilating this to those of the French schools, and of taking away the privilege attached to a degree and subjecting our graduates to an additional examination before examiners selected by the council, as if they were merely candidates coming from an apprenticeship with some obscure practitioner and desiring to be examined for a license. This is returning, as far as may be, to the old method now obsolete everywhere, except in a few of the less advanced countries of Asia and Africa, where there are no great schools of medicine and where the prospective physician picks up his training by acting as assistant to some venerable hakim, whose chief object is to take care that the student follows in the ancient ways and learns no new ideas from such Frankish practitioners as may stray into his practice, and whom he detests, and expels when he can. I do not say that this is the end the Medical Council has in view, but it is from this condition of the profession that we are delivered by the existence of the medical schools of the universities and by them alone.

In the mother country the Medical Council, consisting of men at least as eminent in their profession as our Quebec practitioners, is content to exercise a general supervision over the work of the universities, and to admit that their faculties are the best judges of the course to be followed and the tests of proficiency to be applied. It is true that in Ontario a different course has been followed, but this seems to have in some degree been forced on the profession in that Province by a depressed condition of the medical schools, not existing here, and of which there is further evidence in that Province in the attempts made by the profession to obtain legislation to exclude British graduates from their domain. It is also true that an Ontario university has adopted one of the medical schools of Quebec, and has enabled it to obtain degrees which would be invalid in Ontario as entitling to license, but it is claimed are entitled to the privileges of our law. This abuse should, no doubt, be remedied; but it affords no reason for diminishing the prestige and standing of our own universities. And here, also, I may say that the true interest of the great medical school of Laval is identical with our own and with that of the general public.



## THE REMEDY.

The question remains, what is the remedy for the evils to which I have referred? Here I must confess at once that I expect little for the present from the councils of the medical and legal professions. They have persistently refused all our appeals, and seem possessed with a determination to break down the professional education of the country in the interest of a personal monopoly and of race prejudices. To them I, for one, after having taken much pains and made some personal sacrifices to inform them as to the precise position of the University, and to bring them to a different state of mind, am not disposed to make any further appeal, though I hope that, in the interest of sound principles, our representatives on these boards will continue to protest against their policy. I shall also continue to cherish the belief that a better spirit exists among the professional men whom the councils represent, and very many of whom I know disapprove of the policy which has been pursued.

With reference to this I may mention that one of our graduates has suggested that if a petition were circulated among the members of the legal professions, it might be found that the recent educational action of the Council of the Bar is not in harmony with the views of those it is supposed to represent. The experiment is perhaps feasible, and in any case it is important that the profession generally should be informed as to the tendency of the regulations of the Council; which is, however, under its present constitution, a body of such character that it is more likely to reflect the opinions and interests of any permanent officer than that of the profession as a whole.

The case is different with the Legislature. This represents the whole people, and it is the interest of every man and woman that those to whom we entrust our health, our character and our estates shall be well educated and able men. It is the interest of every father and mother, and of every young man selecting his profession, that the great institutions for professional training shall not be overridden and their gates closed by the selfishness of trades unionism. I know that the power of privileged classes is great, that the professions have an undue weight in the Legislature, and have already secured oppressive and arbitrary enact-

ments ; but I feel that the public interest must in the end prevail, that free and open educational competition must eventually be sustained, and that if the present policy be persisted in it will in the end be swept away by a torrent of popular indignation. I go farther than this, and maintain that if professional narrowness endeavors to support itself by an alliance with even ecclesiastical and political power, they also will be swept away along with it, as we have seen them swept away in our own time in France and Italy, because of alliance with similar abuses detrimental, or supposed to be detrimental, to the public interest. I hold, therefore, that it is our first duty to present our case to the Provincial Legislature, in the hope that the common interest of the whole community will prevail over merely private and professional gain.

Failing this, we still have under the Confederation Act the right of appeal to the Dominion Government ; and since our case is substantially that of the Catholic minorities in the other Provinces, and since we can show that while their educational rights have not only been maintained, but greatly extended under Confederation, ours are being curtailed, the Dominion Government can scarcely fail to listen to our case, more especially as recent events have shown that every loyal subject of the Dominion and of the British Empire must stand firm against the aggressions of local party spirit.

Should the Dominion Government fail us, we have under our royal charter a right appeal to the Crown, and if we can show that in this part of Her Majesty's dominions there is any danger that the rights of free and open education and the principles of that Protestant liberty which is the religion of the Empire are in danger of being destroyed, we may hope for some measure of relief, or, at least, of sympathetic aid, on the part of the just and generous people of the mother country.

Lastly, if no other means are left, we can trust to God and our own right hands as our fathers have been wont to do in times gone by, and can secure for our sons and daughters the education which we desire at our own expense ; and if all legal powers and privileges are refused to us, can at least cherish enlightenment and sound culture for their own sakes, and from the con-

viction that they will in the end be profitable even in an economic sense. Hitherto the English population of Montreal has in effect done this, more especially with reference to education in arts, and it has been its pride that it has established institutions to which even the students of the other Provinces and of the United States have found it profitable to resort. The burden is, I know, a heavy one, involving as it has done the contribution, within the last thirty years, of nearly a million dollars by the Protestants of this city in addition to their share of school fees and taxes; but we may in a short time be called on to make further sacrifices to maintain the right of our children to a thorough and advanced professional training. As one who has endeavored to draw out Protestant liberality in favor of education, I would say here that I deeply feel how much in this respect the citizens of Montreal have cheerfully borne, but I believe the English people of this Province, even if left alone and unsupported, are able to sustain their educational systems till the time shall come, as it surely must, when the majority of our fellow-citizens shall, like the great nation from which they have sprung, abandon their present system of education and adopt one more akin to ours. I have no fear as to this result. Our cause is that of God and humanity. No means or effort devoted to it will be without their reward; and however repressed now, it will surely prevail.

I cannot close without referring to another point, namely, the inexpediency of our present system of allowing professional education to be dominated by Provincial Boards instead of having Dominion Boards of Registration for all the Provinces. The Confederation Act very properly places matters of trade in the hands of the Central Government. It would be intolerable that a man who had learned his trade in one Province should not be able to practice it in another, or that a man whose place of business was in one Province should not be allowed to sell to customers in the Province adjoining. Yet this is the disability to which some of the highest professions are subjected, and in this way it is attempted to tie up our young men to a Provincial rather than to a Dominion career. Surely when in Britain and France, with their large populations, every practitioner is free

of the whole country, it is folly in our little Dominion to say that a Quebec M.D. cannot practice in Ontario, or an Ontario physician in Quebec. We should follow the mother country in having Dominion Boards of Registration for all the leading professions. Such Boards, like the Medical Council of Great Britain, would not themselves teach or examine, but see that the institutions appointed for that purpose attended faithfully to their duties, and recognized their work accordingly. The Dominion Lands Act already provides for this in the interest of the Western territories, in so far as surveyors are concerned; and there should be similar Dominion legislation for medical and legal practitioners, so that every properly trained young man might, if he thought proper, obtain a Dominion qualification. In so far as medicine is concerned, this, under the new Medical Act of Great Britain, could be made an Imperial qualification, which would enable any one holding it to practice in any part of the Empire or, practically, in any part of the world. This is a reform which should commend itself to our young men, and I feel sure if ably taken up would in the end approve itself to the good sense of all men. At a time when we have agitation for Imperial Federation on the one hand, and for commercial union with the United States on the other, we should be ashamed of not having free trade in professional work between the different Provinces of the Dominion. In this matter the local and denominational and linguistic jealousies which have prevented us from having elementary education under the general government, have no reasonable place. The professions belong in the matter of training to education, but in the matter of practice to business or trade, and it is the common interest of all creeds and nationalities that they should not be restricted in the choice of their physicians and legal advisers.

I have not in this lecture gone into the example of other countries. It would be easy to show that the position of our Protestant Universities in Quebec is more restricted by legal enactments and threatened by farther restrictions to a greater extent than any similar work in any country whatever claiming to be Christian and civilized; but the reference to facts and details would be tedious and may be reserved for some occasion when

it will be more in place. I may merely say here that the fact that our professional and arts degrees are given a consideration in the other Provinces of the Empire, in the United States, in Great Britain and Ireland, and on the continent of Europe, to some extent makes up to us for the fact that they are refused their due value by the Province in which we live and which we chiefly benefit.

#### CONCLUSION.

I have spoken frankly on these subjects, perhaps some may think too frankly. My excuses must be: First, that changes of a most serious character are hurrying upon us, which will require forethought and firmness on the part of all who earnestly desire the welfare of Canada; and secondly, the feeling of a man who has devoted much of his life to the attainment of great objects beneficial to his country rather than to himself, and whose remaining time is now all too short to finish his life's work well, even if unchecked by unnecessary and unfair obstruction. I have no fear, however, for the future. I believe that the good work which has been done will live, and that those who endeavor to thwart it might as well set themselves in opposition to the great forces of Nature itself. They might as well endeavor to dam up our great river and to prevent it from pursuing its course to the sea, and from carrying to us on its bosom the wealth of the world, but the stream would overflow and undermine their barriers, however strong, and the temporary restraint can end only in overflowing flood.

To the students who are here to-day, it may appear that the subjects of this lecture belong to those older than themselves; but it is not so. To you I would say, ladies as well as gentlemen, that the burden which we are soon to lay down you must take up; and it is your duty now to nerve and train yourselves in all good habits and learning that you may do credit to your Alma Mater, may sustain that cause for which so many good men and women in Montreal have made great sacrifices, and may advance the highest interests of our country and of the world. To you belong the present honor and future prosperity of the University and of the educational interests which it embodies and represents. Our hundreds of students in Canadian

colleges, as they march out into the battle of life from year to year, if patient, energetic and godly, leading useful and noble lives, are able to guide Canada and to sway the world. May it be so with our students, and with those of all other schools of sound learning.

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## CHEYNE-STOKES RESPIRATION AND RENAL CALCULUS.

BY SIR JAMES ALEXANDER GRANT, M.D., F.R.C.P., LOND., &c.,  
Consulting Physician, General and General Protestant Hospitals, Ottawa City.

*(Paper read at the Canadian Medical Association, Hamilton, Sept., 1887.)*

Mrs. G., aged 46 years, stout habit of body, and mother of six living children. Never had gout or rheumatism. No history of consumption in family. Neither neurotic herself nor has a neurotic ancestry or relatives. She had never experienced any difficulty in micturition till about five years ago, when she noticed there were voided a few small concretions, composed of uric acid, and attended by a moderate degree of renal colic, which subsided shortly after the escape of the calculi. For the past few years she has been subject to occasional pains in the lumbar region, but at considerable intervals. Complains at times of frontal headache. No cardiac palpitation or chest trouble, the functions of heart and lungs being normal. In May 1886, was seized suddenly with great difficulty in her breathing, almost approaching suffocation, the respiration, at first deep sighing and frequent at times, afterwards becoming slow and oppressive, with a sense of inability to fully expand the chest. Frequent yawning was also observed; the facial expression was pale, anæmic, and anxious. This condition continued more or less for fully two hours (the most acute stage occupying about half an hour), subjected to the most vigorous measures for relief, and gradually subsided, leaving no unfavorable symptom, except a feeling of depression, and uneasiness fearing a recurrence of the attack. Throughout, the respiratory movements were lessened, doubtless the result of lowered activity in the respiratory centre. Occasionally the shallowness and infrequency of breathing assumed rhythmical variations of intensity, associated with the usually well defined periods, alternating by an increase and decrease of

breathing power, with the abnormal *pause*. Strange to say, she continued conscious throughout and fully aware of the surrounding circumstances, and quite unable to rid herself of the "Cheyne-Stokes grasp," doubtless connected with *some subtle molecular state* of the nerve elements, which under ordinary circumstances guide, direct and control normal respiratory power.

On July 24th, had an exceedingly severe attack in the chest, with precisely the same series of symptoms, lasting fully two hours. Again on the 25th July, precisely the same state of respiration suddenly developed, and with varying degrees of intensity spread over a period of nearly three hours, both attacks being preceded by severe pains in the region of the kidneys. Almost immediately afterwards a copious discharge of urine took place, and a considerable number of small concretions were voided, veritable calculi, pale reddish color, crystalline, and under a magnifying glass their glistening facets were quite apparent. The urine was acid, and rather highly colored, but free from albumen and tube-casts. At this stage the renal pains diminished and the chest symptoms disappeared, so much so that the following day it was quite remarkable to observe the ease, comfort and regularity of pulmonary action. On several occasions when severe pain was experienced in the lumbar region, a sense of chest contraction was felt and associated with a dread of a renewal of former difficulty in the breathing.

For the past six months enjoyed very good health and spirits, and entirely free from any chest complication whatever. Entire absence of pain in the region of the kidneys, voids urine regularly, quite free from calculi, rests comfortably, and at present enjoys excellent health in almost every particular.

During the progress of this case, in the stages of chest difficulty, the action of the heart and pulse were irregular, and proportionally so, to the intensity of interference with normal respiratory action.

Rosenbach (in "Eulenburg's Encyclopædia") adverts to the condition of the heart and pulse, and says that not infrequently no perceptible changes can be observed, and that at times, however, very interesting changes are noticeable. In certain cases the pulse at the beginning of the pause is quicker and of dim-

inished tension. During the ascending stage of the breathing the pulse diminishes in frequency and the tension increases, so that during the deepest inspiration we have the lowest pulse and the highest blood-pressure. There is a case mentioned by "Hesky," where the heart came to a complete stand-still during the pause, and when the stage of full dyspnœa was reached the pulse was normal.

Powerful electric irritation of the phrenic nerves during the pause, to the extent of producing contractions (several in number) of the diaphragm, has no effect on the after ascending and descending course of the breathing. This shows that the phenomenon is not dependent on any want of oxygen in the blood, which is a very important point. In diseases where Cheyne-Stokes phenomenon has been present in slight degree, such has been observed to be greatly increased by the exhibition of narcotics, as opium, chloral and potass. bromid. Nitrite of amyl, on the contrary, has a most beneficial action.

Cheyne-Stokes respiration is liable to occur in those cases where the nutrition of the brain is interfered with; appears in cerebral compression from hemorrhage, tuberculosis and purulent meningitis; in œdema of the brain from anæmia and in cases of tumor of the brain; in various diseases of the heart, muscle insufficiency, fatty heart, insufficiency of the valves, especially of the aorta; in severe diseases of the lungs, such as croupous pneumonia (especially of drunkards) and bronchitis of children; and, lastly, in severe blood losses. The phenomenon may in some cases disappear for weeks and then reappear, as in the renal case just presented. Such, also, has been observed in chronic heart diseases. Nearly always seen when a patient is partially or completely comatose. This condition is not absolutely fatal. Recovery has been noticed in some cases of œdema of the brain from uræmia, as well as in the case just reported.

It is interesting to note some of the views as to the nature of this phenomenon. Filchner favors the view that it is due to changes in the circulation. He considers that contraction of the arterioles of the medulla oblongata is at the bottom of it; that owing to contraction of these vessels less blood goes to the medulla, and that in consequence there is an accumulation of



carbonic acid, which irritates the respiratory centre and causes the rapid breathing. This contraction is succeeded by marked dilatation, and in this manner the medulla is supra-saturated with oxygen, which brings about slower respiration and finally a stop, to be again followed by contraction and its resulting quickened breathing.

Rosenbach contends that it is due to a periodically recurring debility of the respiratory centre, that the cause is to be found in the nerve centres and is entirely independent of the circulation. As instances of similar kind, he refers to a periodically recurring debility of the vaso-motor centre, clinically exemplified in alternate paleness and redness. He also instances certain pulse abnormalities as illustrative of a like affection in another nerve centre, viz., "the vagus centre." The breathing period he compares, in Cheyne-Stokes phenomenon, to the normal respiration, and the pause he compares to the perceptible pause between inspiration and expiration. He, in fact, sees in this phenomenon only a very exaggerated degree of the normal process of breathing. As another analogous condition he instances the state of the pupil and the activity of the brain. When the brain is tired or exhausted, sleep is induced, and during sleep the pupils are contracted. In the moment of waking the brain is active and the pupils dilated. He compares the condition of the pupils in sleep to the pause in the Cheyne-Stokes phenomenon. In both instances the condition of the central nervous system is the same, markedly diminished irritability.

Rosenbach's views may be briefly stated as follows: Under the influence of certain anomalies of brain nutrition (in cerebral diseases, or the lungs or circulation) there arises in the brain in general or in some of its centres, *especially the respiratory centre*, localized disturbances which depress the normal activity of the affected part, and through this there arises remissions or complete intermissions in the activity of the centre (pause in breathing). So soon as the centres have a short rest (pause) the activity returns, an increased activity (increased breathing), but this increased duty or work soon again tires the centre, and then we have a repetition of the same abnormal action. These

views of Rosenbach's are now accepted by the best authorities on this subject.

In cases where there are signs of general plethora about the head, Rosenbach highly recommends leeches, and in all such cases it is important that narcotic treatment should be avoided. Stokes, who first observed this phenomenon, says he never witnessed it except in cases of fatty degeneration of the heart and a few weeks before death; Cheyne, however, did not refer the symptom especially to that form of disease. Subsequent observations led them to believe that this phenomenon is not rare, and occurs in a variety of diseases.

This problem rests on a foundation as yet not completely defined. It may be cardiac or renal, or both, as to origin. When the chemistry of the system becomes disturbed through the introduction of abnormal elements of secretion, what an important part arterio-fibrosis plays, or even the introduction of *toxic* elements into the blood, resulting in abnormal actions and reactions on nerve elements, thus interfering with the performance of their normal functions. As time passes on, we may have additional clinical phenomena to guide and direct as to the formation of a positive opinion as to cause and effect in this interesting respiratory phenomenon, but for the present it will be acting cautiously to adopt no hurried conclusions.

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### SOME RARE FORMS OF VULVAR TUMOR.\*

By W. P. MANTON, M.D.,

Visiting Physician to the Woman's Hospital and Foundlings Home, Detroit.

The exceeding vascularity of the superficial as well as the deeper parts of the female pelvic outlet renders dilatations and varicosities of the venous radicles of common occurrence in pregnancy. Of this nearly every writer on obstetrics takes cognizance; and many cases are on record where the bursting or accidental puncture of such dilated vessels has led to an almost immediately fatal termination.

A varicose condition of the vulvar veins in the virgin is, however, of such rare occurrence, that after a careful search in the

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\* Prepared for Ontario Medical Association, 1887.

current literature I am unable to find more than two or three authors who cite cases or in any way refer to such a condition as possibly existing.

It is with no hesitation, therefore, that I bring before this Society the histories of the two following cases. While on a visit to Prof. Credé in Leipsic, in the early part of 1882, I was invited by his assistant, Dr. Richard Lomer, to go with him to see a case to which he had just been called by the attending midwife. The conditions found were a transverse position of the child, a cord prolapsed through a fully dilated os, and a rapid, irregular foetal heart-beat. In the posterior half of the mother's right labium major, extending inward to the labium minor, was a varicose tumor the size of a Florida orange. During the extraction of the child, its right clavicle and humerus were broken and the varicose tumor ruptured. As soon as the child's head escaped from the vulva, the hemorrhage from the torn varix became alarming, the blood soon saturating the bedding and forming a pool on the floor beneath. Pressure on the wounded parts with the fingers, followed by pledgets of cotton soaked in tr. ferri sesquichlor. and the subcutaneous injection of ergotine, finally controlled the bleeding. The tear was subsequently dressed with iodoform, and was healed completely by the tenth day. I afterwards obtained from the patient the history in regard to the varix.

CASE I.\*—When a young girl the patient had had a boil or abscess at the point where the tumor is now situated, which was opened by a physician. The varix had existed for some time before marriage; but no direct connection between it and the abscess could be traced save in point of location. In the non-pregnant state the tumor is about one-fourth its present size, but has gradually increased in size from year to year. During menstruation it enlarges and becomes painful. During pregnancy a great increase in volume takes place, although in former times it has never equalled its present dimensions.

CASE II.—Miss A. C., aged 16, was referred to me by Dr.

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\* This case was also reported in the Boston Medical and Surgical Journal for December 18, 1882.

Henry A. Cleland of Detroit in October, 1885. The patient began to menstruate a little over one year ago. At that time a slight fullness of the left labium major was noticed, which, after the application of a wash, somewhat diminished. During the summer, however, the labial tumor continued to enlarge in spite of the applications, and when I saw her in October it had reached the size of a large walnut. There was no pain, but some itching, connected with the growth, and it was feared that this latter condition might lead to habits of self-abuse. Menstruation had been irregular, and the flow varied greatly in amount. Three weeks before I saw her she had flowed for two weeks, and was, as the result, looking rather pale, although otherwise a healthy, well-nourished girl. The attending physician having already made external applications with no result, I advised removal of the tumor. This I did on the following day, kindly assisted by Dr. Cleland. The wound was dressed with iodoform, and healed rapidly, the sutures being removed on the eighth day. Menstruation set in a week after the operation, and lasted three days. For three periods the patient menstruated every three weeks, and afterwards every 28 to 30 days.

*June 17, '86.*—I again examined her, and found the parts in good condition, the place of operation being marked by a linear cicatrix. Menstruation is now regular every four weeks and lasts four to five days, the amount normal.

I have no explanation to offer for the occurrence of dilated vulvar veins in the unmarried female. It is possible that in my first case, the former abscess and the surgeon's knife had so weakened the parts that, as the result of hard work and constipation, the veins becoming more and more distended, caused an absorption of tissue, and thus gradually worked to the surface. In the second case, the irritation and congestion kept up by the varicose condition undoubtedly accounted for the profuse and irregular menstruation, but no cause could be found for the dilated vessels. Tilt\* offers the suggestion that "varicose veins may be gradually caused by the menstrual nisis," and quotes Gay, who found the condition most frequent during the first two

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\* Uterine and Ovarian Inflammation, London, 1862, p. 160.

or three years of menstruation, and in connection with either too profuse or too scanty an amount of secretion. He states that at this time the femoral vein is liable to become surcharged, and on account of the unyielding nature and small size of the femoral ring, dilatation of the vessel may readily follow. This might possibly explain the origin of a varicose condition of the internal saphenous vein, but we cannot for a moment imagine that it would affect the corpus cavernosum urethræ bulb of the vagina, especially if the other veins did not participate in the dilated condition. In my first case, as I remember, there was no other varicosity besides the vulvar tumor; and in my second case, I am positive that no such condition existed.

Hildebrant† states that large varices can only be formed during pregnancy. This Winckel‡ denies, and referring to my first case, with one or two others in the literature of the subject, says: I saw in 1869, in the case of an unmarried woman who had never borne, and who complained of great pain in the left side, etc., a varicose tumor of the left labium major the size of a hen's egg. This author states that except during pregnancy, this condition is seldom seen; in his own enormous special practice he had only met with eleven cases of large varix of the vulva in the non-gravid.

As to the treatment of such cases, my own opinion is, that when the tumor gives rise to annoyance by burning pain, itching, etc., or where the increase in size is rapid, surgical interference is necessary, and a complete removal of the growth demanded.

A third case which I desire to bring to your notice is, perhaps, not so uncommon as those already mentioned, but as it is rarely spoken of in the text-books devoted to the diseases of women, it is worth a moment's consideration.

CASE III.—A., aged 17 years, was admitted to the House of the Good Shepherd in September, 1886. Very soon after, the nurse having charge of the children noticed that she was affected with a yellowish vaginal discharge, which continued for a month,

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† Die Krankheit der Aeußere Weiblichen Genitalien, Stuttgart, 1877, p. 53.

‡ Die Pathologie de Weiblichen Sexual Organe, Leipsic, 1881, p. 37.  
Lehrb. der Frauenkrankheiten, Leipsic, 1856, p. 58.

and had a penetrating, offensive odor. At this time, according to the nurse's statement, numerous "small red pimples with white caps" made their appearance, being scattered all over the vulva to the mons veneris. These were treated with a wash and other remedies by the visiting physician, Dr. W. R. Chittick of Detroit, but were made rather worse than benefitted. In two weeks time the papules had run together, and the labia had increased perceptibly in size, first on the right side and then on the left. In January, 1877, at the request of Dr. Chittick, I examined the patient. The vulva presented a most revolting sight, Two large growths, the size of the doubled fist, projected from and involved the labia majora—the whole mass irregular, horny, and bathed in a stinking discharge. Careful measurement showed that the growth on the right side had a length of  $3\frac{3}{4}$  inches and a thickness of  $1\frac{1}{2}$  inches; on the left side, the length was  $3\frac{1}{2}$  inches, thickness  $1\frac{1}{2}$  inches. Secondary growths were scattered about the mons, surrounded the anus, and extended on to the inner aspects of the thighs. The skin at the base of the tumors was infiltrated and brawny. I diagnosed condyloma, or verruca acuminata, and suspected syphilitic infection, but a careful catechising of the girl elicited no specific history. At the doctor's request I removed the growths next day, using a clamp, the scissors and the Paquelin, and tying vessels as the tumors were separated. The hemorrhage was quite extensive—a general oozing rather than direct bleeding from the vessels. This was finally controlled by iron-cotton and the T bandage. The patient did nicely,—had but little pain, no rise of temperature, and in a week's time was about again. In two weeks from the first operation, some of the growths about the anus, which had been left, began to increase rapidly in size, and I again operated as before, with the same result. To-day the vulva has a normal appearance, except that the labia majora are a little flattened, and is in a perfectly healthy state, save at one point where a growth of the size of a three-cent piece still exists and requires removal. After the operation, not feeling satisfied with the history of this case, although it appeared that the patient was free from specific disease, I had the parts bathed in black wash and gave small doses of biniodide of mercury,

under which treatment the patient improved both in general health and locally.

Writers on venereal and skin diseases speak of the occurrence of such warty growths in young girls, and agree that they are due to other than specific cause.

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## QUARTERLY RETROSPECT OF SURGERY.

BY FRANCOIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative Surgery, McGill University.

### *Osteogenic factors in the Development and Repair of Bone.*

—Dr. William MacEwen of Glasgow has a most valuable and original paper on the above subject in the October and November numbers of the *Annals of Surgery*. The paper is based not on experiments made on animals, but on clinical observations made on actual cases in his own practice, both hospital and private. No one has done more for the advancement of the surgery of the bones than Dr. MacEwen, and he is regarded as an authority in this department of surgery, not only in Great Britain, but on the continents of Europe and America. He is a most accurate observer, as well as an original investigator, and is at the same time a man who has had a vast clinical experience, of which he has made good use, and observations made by him on the development and repair of bone demand the closest attention, because they are sure to throw new light on this very difficult and obscure subject. The article is too long to be reproduced in *extenso*, but I shall endeavor to give a brief synopsis of it.

For a long time the periosteum has been regarded as the chief factor in the reproduction of bone; more recently the medulla has been stated to be capable of bone regeneration, while a very insignificant part has been assigned to the elements contained in the osseous framework. Dr. MacEwen contends, however, that the periosteum is not the potent osteogenic factor which many believe it to be, but that the soft tissues enclosed in the osseous tissue play the chief rôle in the development and reproduction of bone. Dr. MacEwen, whilst freely admitting the importance of maintaining the intimate relations of the bone with this vascu-

lar periosteum, holds that too much fear is expressed that death of bone must follow the partial or temporary elevation of the periosteum. When only a part of the bone is denuded of its periosteum, it is still supplied with sufficient blood from the interior to preserve its vitality.

The article consists of a number of propositions, followed by cases which prove their correctness.

Proposition A. *When periosteum has been detached from an extensive area of an adult healthy bone and replaced after a lapse of some hours, union between the bone and periosteum can take place without sloughing or observable augmentation ensuing.*

Proposition B. *The periosteum may be separated from the bone for a period of days by inflammatory products, after the withdrawal of which, reunion between the periosteum and the bone may take place without necrosis ensuing; showing that the temporary separation of the periosteum from the bone, even as a pathological result, is not necessarily attended by death of the bone.*

Proposition C. *The periosteum covering a portion of bone may be completely destroyed or permanently removed, yet the denuded bone may not only retain its vitality, but may throw out cells which will cover it and form a new periosteum.*

Most convincing cases are detailed to prove this latter proposition; the following is most remarkable:—

A boy, aged  $3\frac{1}{2}$  years, had the periosteum stripped from the whole tibial diaphysis of one limb, with the exception of a small portion posteriorly which surrounded the nutrient vessel. This was the result of acute suppurative periostitis, the symptoms of which had lasted for nearly seven days previous to admission. The whole length of the tibial diaphysis was exposed by linear incisions; the periosteum was found separated from the bone by pus to such an extent that the finger could be passed round the entire circumference of the shaft. After a thorough washing, the bone looked like white porcelain. Between the periosteum and the bone was placed a series of layers of sublimated gauze, so arranged as to separate the periosteum from the bone around its whole circumference. In forty-eight hours the gauze was removed and the parts washed and inspected. The bone



had all along its shaft the aspect of life. The stuffing was re-applied as before, and removed again on the fifth day. Now the shaft of the bone presented a pinkish blush, and in many places granulations were appearing. The stuffing was reapplied and removed on the sixteenth day, and now the whole shaft was covered with granulations, with the exception of a small portion which looked "like a white island in a red sea." The periosteum was also covered by a layer of granulation tissue, which was quite soft and pliable, and there was no hardness indicative of bone formation detectable in this layer. The stuffing was re-applied. At the end of four weeks granulations hid the entire shaft from view. The granulation tissue covering the bone had a firm cartilaginous feeling, and though of some thickness, was firmly fixed to the shaft. The granulation tissue covering the under surface of periosteum was quite soft. The two layers of granulation tissue were now allowed to come together and soon coalesced, and the wounds rapidly cicatrized.

In this case the preservation of the nutrient vessels tended greatly to the good result, but it proves conclusively that sufficient blood may be supplied from this source to sustain it for weeks, independent of the periosteal supply. The most interesting point in the case is the fact that the periosteum showed no evidence of bone growth, although granulations were freely thrown out.

Proposition D. *A portion of bone which has its continuity severed on all sides, and at the same time has had all its periosteum removed, is capable of living and growing.* Numerous observations are given in support of this proposition.

The next proposition goes still further.

Proposition E. *Not only do detached portions of bone deprived of their periosteum live when reimplemented in their original position, but such portions are capable of living after transplantation. Parts of deeper layers of bone which have no periosteal connection have lived and grown.*

A case is given where two inches of humerus was restored by bone-grafts.\* In this case, although the periosteum was preserved, it produced no new bone.

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\* See Retrospect, September 1881.

Proposition F. *The periosteum does not initiate the reproduction of bone.*

If a healthy bone be removed subperiosteally without previous irritation, very little fresh bone is reproduced. The periosteal tube collapses, and its position is afterwards marked by a layer of fibrous connective tissue, which ultimately becomes absorbed. Again, if a matured bone has been submitted to irritation for a sufficient time to enable new bone to form, and the old bone be then removed subperiosteally, good, sound bone is reproduced. This is because the formative osseous elements have been poured out on the surface of the bone from the Haversian canals during the irritation of the bone and become entangled in the meshes of the periosteum. Thus a layer of new bone is formed on the periphery of the old and on the under surface of the periosteum, which serves as a starting point for the formation of new bone by the proliferation of osseous elements.

Proposition G. *Bone may be regenerated independently of the medulla, which may itself be reproduced.*

Proposition H. *The histo-genetic phenomena support the foregoing observations, showing that periosteum does not generate bone.*

The author then goes on to show how bone is reproduced from the proliferation of osteoblasts, which are found in the interior of the bone, in the immediate tissue, in the Haversian canals, and under certain circumstances in the central cavity. So that the bone may be developed independently of the medulla and periosteum. The periosteum merely acts as a sheath, as a protecting limiting membrane through which the bone receives some of its blood supply, a very important portion being provided by the nutrient vessels. If these conclusions are accepted, Dr. MacEwen says that the surgeons will no longer trust the periosteum to regenerate bone unless it has adherent to it sound osseous plaques, the elements of which have the power of proliferation, as from these elements alone can osseous regeneration proceed. He will not discard injured osseous tissue under the belief that it must necessarily die, merely because divested of periosteum; but he will regard it as a tissue possessed of great independent vitality, which, if placed in suitable media where

blood serum is plentiful and where blood vessels can be quickly thrown out, is capable of living and growing. With that belief, limbs which otherwise would be sacrificed may be saved.

*Surgery of the Kidney—Method of Examining the Kidney.*  
—Dr. J. Israël of Berlin (*Deutsche Med. Woch.*, No. 20, '87), at a meeting of a medical society, showed a specimen of renal carcinoma which he had got by excising a diseased kidney. The chief interest of the case arose from the fact that at a very early stage of the disease he had diagnosed the affection by palpation, and then proceeded to extirpate the kidney. His method of examining the patient is as follows: After the patient has been well purged he should be placed on the healthy side on a hard surface, with a thick roll of some hard material under his flank to separate the ribs from the ilium. The end of the table towards which the patient's head points should be raised by placing blocks of wood under the legs. The patient should now be rolled half over on his belly and palpation performed between the anterior axillary line and the anterior edge of the greater dorsal extensors, immediately under the line of connection of the tips of the 11th and 12th ribs; at this point the lower end of the kidney, whether enlarged or normal, presses on inspiration. Israël mentions that the position of the kidney is altered by respiration, and that the kidney can be more easily felt on deep inspiration.

Dr. H. Longstreet Taylor, in a very comprehensive article on *Primary Malignant Degeneration of the Kidney in Infancy* (*American Jour. of the Medical Sciences*, Oct. 1887) describes two cases which came under his own observation, in one of which he removed the tumor through the anterior abdominal wall. The child was only 20 months old, and only survived the operation two hours. He mentions 25 cases in which the tumor was removed by operation, of which ten recovered. In many the operation did not succeed, because it was performed too late, and when the tumor had reached too large a size. Of the ten that recovered, six subsequently died from recurrence. Dr. Taylor is strongly in favor of operation, and says that no one can positively diagnose these tumors as carcinoma, and that at least an exploratory incision should be made. He alludes to the cases of Park and Godlee, where large tumors of the kidney

were successfully removed in very young children. Park's case was doing well a year after operation.

Mr. Jordan Lloyd (*Practitioner*, Sept. 1887) has a suggestive article entitled *Practical Observations on Kidney Stone and on Kidney Mobility*. He rightly remarks that although kidney surgery was one of the latest medico-legal fashions till cerebral surgery usurped its place, there is still much to be learnt, as there is much to be forgotten. The fact that more than twenty-five kidneys have been explored for renal calculus without any stone being found is sufficient proof that the subject of diagnosis is not yet fully worked out. In many of these cases he has no doubt stone was present, but the operator failed to find it, first, because of the inaccurate conception that exists of the precise nature of a renal pelvis, and, second, because of the faulty methods adopted for the examination of the kidney's interior. Mr. Lloyd says the pelvis of the kidney is totally different from what our text-books tell us; instead of its being a funnel-shaped membranous sac, it really consists of a cluster of branching tubes, so that the procedure of exploring the kidney's interior by means of a finger introduced into the pelvis through an opening in the substance is practicable only in dilated kidneys, and is absolutely impossible when we are examining a viscus in a normal condition. He asserts that he has not yet, however, found a healthy kidney into the primary pelvic tubes of which he could introduce his index finger. Mr. Lloyd's method of exploring a kidney is first to puncture its lower end with a long-bladed tenotome in a direction upwards and inwards, making for the lowest of the calyces; the surgeon can tell by the altered resistance the moment a cavity is struck. Into the opening a child's bladder sound is passed, and the whole interior of the pelvis of the kidney is systematically explored. The sound should have a beak not more than one-third of an inch in length and a stem seven inches. It should be passed at once to the top of the kidney cavity, a distance of nearly four inches, and the exploration should be carried on from above downwards. The author has found this method succeed when needle puncture had failed to locate the stone. In removing a small stone, a scoop and the finger is preferred to forceps.

The diagnosis of stone is often most difficult ; occasionally pain may be present in both loins, or it may be referred to distant points, as the back of thigh, hips, &c.

The author attaches great importance to the evidence that may be obtained by immediate percussion over the suspected organ. Percussion should be made just beneath the space between the tips of the last two ribs, and in a direction upwards, forwards, and slightly inwards. The patient should be made to stand upright before you. The blow should be sharp and decisive, and of force sufficient to affect a structure situated several inches below the surface ; if a calculus be present at the moment of percussion the patient will complain of a sharp, stabbing pain. To fix a floating kidney, Mr. Lloyd strips off a portion of the kidney capsule over an area of one inch in diameter, and then secures the kidney to the lumbar tissues by carrying two stout catgut sutures through the skin fascia and muscles and then entering the proper capsule and kidney substance close to the edge of the exposed area, making the sutures emerge at a corresponding point on the outside. He uses drainage in these cases, and closes the wound with deep silver sutures.

In the October and November numbers of the *Practitioner* there is an interesting article by Mr. R. J. Godlee entitled *Reflections suggested by a series of cases of Renal Calculus*. Referring to the necessity of greater knowledge of the symptomatology of renal calculus, he says Dr. Knowsley Thornton asserts that all the symptoms of stone in one kidney may be caused by the presence of a stone on that of the opposite side. Mr. Godlee mentions a case which rather lends support to this contention. It was the case of a young man whose right kidney had been twice explored thoroughly for stone without result ; seven weeks after the last operation he passed *per vias naturales* a stone the size of a date-stone. The question is, did this stone come from the other kidney or from the ureter. Since then he has been troubled with left renal pains. The author also refers to the frequency with which a person having a stone in the kidney refers the symptoms to the bladder, and mentions a case from which he removed a stone in 1885 from the right kidney of a man where for many years the symptoms had been referred

to the bladder only, and he had been treated for cystitis by the best surgeons; at last, however, he had a severe attack of right renal colic, which recurred, and Mr. Godlee performed nephrolithotomy with success. In this case, a few days after he was going about he had colicky pains of left side and passed several fragments of stone. The question arises, did these stones come from the right kidney. Mr. Godlee says that the post-mortem room of every hospital illustrates the fact that large calculi may cause little or no disturbance. Cases of shrivelled kidney are found where a stone has blocked the ureter; but the kidney must have been affected with hydro-nephrosis before it shrank. Some much disorganized kidneys give rise to but little pain, pus in the urine being the only symptom. He relates the history of a case where the patient suffered from frequent attacks of typhlitis, which ceased altogether after a stone was extracted from the prostatic urethra. Repeated attacks of intestinal colic, especially if accompanied by nausea, should lead the surgeon carefully to investigate the state of the kidneys and urine. Rectal troubles occasionally occur before or during the descent of the stone, as pointed out by Mr. Bruce, and Mr. Godlee has seen well marked herpes zoster in the course of a lumbar nerve during attacks of severe pain. The author asks the question, How long can a person go on with a kidney full of stones? and gives cases to show that subjects of renal calculus are often better left alone. In several cases where he has advised nephrectomy, and the patient refused, they got quite well, sometimes having a fistulous opening remaining. Several cases of abscess of the kidney which were operated on are instanced to show how the mere evacuation of the pus will effectually relieve the patient.

One should not be in too great a hurry in urging a patient to submit to a removal of the kidney, as the organ may still be able to do a certain amount of work. In a great number of cases nephrectomy may be undertaken with comparative freedom from anxiety, the principal dangers being from shock and loss of blood. The amount of shock depends on the amount of adhesions to surrounding parts. If the operation takes more than one hour, the prognosis of the case is not favorable. In cases where the kidney is much enlarged and full of abscesses, Mr. Godlee advises

that a preliminary nephrotomy should be performed, and that nephrectomy should be performed later when the kidney has shrivelled. Mr. Godlee has extirpated the kidney four times, with one death. Several interesting cases of renal calculus are given in detail.

*Splenotomy for Leucocythemia.*—Dr. Strong (*Western Med. Reporter*, Sept. 15, 1887) reports the removal of a leucocythemic spleen weighing 9 lbs. 9 ounces. The spleen was freely movable, no adhesions to the abdominal wall or intestines existing; the tail of the pancreas was so firmly united to the hilus of the spleen that no attempt was made to separate it; it was ligated with the pedicle of the splenic tumor. The great curve of the stomach was adherent to the spleen. The patient died four hours after operation from hemorrhage of the adherent surfaces which had been separated.—(*Med. News*, Oct. 8th, 1887.)

*Splenectomy for Wandering Spleen.*—Dr. Myers removed a large spleen weighing 7 lbs. from a woman who had malaria. The spleen had become dislocated and settled on the brim of the pelvis. Three suppurating sinuses led down to it. Tumor was removed by abdominal section and the pedicle ligatured in two places. The wound was drained. Patient was discharged from hospital on the 21st day, and ultimately fully recovered.—(*Jour. of Amer. Med. Ass.*, April 2, 1887; quoted in August *Annals of Surgery*.)

In a paper read by Dr. Podrez of Russia before the Russian physicians assembled in Moscow, January 1887, a brief account was given of all the known splenectomies, numbering 41. He adds a case of his own. A woman aged 36, large spleen from malaria; extirpated by incision along edge of left rectus abdominis muscle. Considerable blood lost at operation from rupture of a vein. Patient did well for three weeks and then died of septic symptoms. Of the 42 cases reported, only 10 were favorable.—(*Chirurg. Vestnik*, March, 1887.)

In the same journal a case is reported by Dr. Donat of extirpation of the spleen in a female, aged 26, suffering from malaria. Patient recovered. Next year patient was delivered of a healthy child.

Dr. Orlovsky also reports a case (*Gazeta Lcarsca*, No. 1,

1887) of removal of spleen from a woman aged 26. There was ascites. Great hemorrhage during operation. Patient died on the 25th day. Death preceded by inflammation of lungs.—(*Annals of Surgery*, Aug. 1887.)

*Tumors of the Bladder.*—Prof. Guyon of Paris, in a paper read before the French Congress of Surgery (*Revue de Chirurgie*, Nov. 1886), says that in the immense majority of cases, the diagnosis of tumors of the urinary bladder can be established without operation. The cardinal symptom of bladder tumor is hæmaturia; when this occurs without appreciable cause, tumor should be suspected, still more so if it be produced in spite of repose. When simple catheterization determines an abundant and lasting hæmaturia, a tumor may be almost positively diagnosed; the hæmaturia may be determined by the sound in contraction of the bladder. In every case the passage of blood is of importance, for it demonstrates that the bladder is the seat of the affection. It is easy to recognize this from renal hæmaturia, which is often preceded by nephritic colic. . . . Fragments of the tumor may be passed in the urine, and by microscopic examination the nature of the growth may be determined. Having diagnosed the tumor, how shall it be treated? There is but one method of exploration which permits of ocular inspection, viz., supra-pubic section, the only local contra-indication being too great infiltration of the walls; this can be determined by rectal examination. Vesical tumors, malignant, as well as benign, may occupy the bladder without the subject suffering otherwise than from hæmaturia. We have cystitis, retention of urine, etc., in cases of benign as well as malignant tumors. It is not the nature of the tumor, but the trouble caused by the affection, that is of importance. Benign tumors are always removable, malignant never; even when they have hardly attained the size of a pea there is a marked infiltration of the bladder wall, and when their existence is suspected on account of hæmaturia, it is already too late. Operative measures are determined, not by the volume of the tumor, but the appearance of complications, cystitis, retention, etc. The operation must be radical, and for that the interior of the bladder must be open to easy examination. The frequency of accessory tumors alone would be sufficient to elimi-



nate perineal section. The proper operation is hypogastric section. If the tumor lies in the superior segment of the bladder, resection is possible, and should be done, but more often the tumor lies in the neighborhood of the trigone, near the ureters, where resection is impossible. In such cases the surgeon must be content with scraping and cauterization.

Prof. Guyon, at the time of writing this paper, had performed 18 operations upon 15 patients, three being recurrences. In 13 cases the tumors were malignant, and in two only was there a permanent cure. However, in all the cases the conditions which demanded operation were alleviated.—(Condensed from *Annals of Surgery*, May 1887.)

*Suction in the Removal of Foreign Bodies from the Bladder.*

—Mr. Reginald Harrison of Liverpool (*Lancet*, Oct. 29, 1887) has discarded the lithotrite as an extractor of foreign bodies from the bladder, and trusts to a large-eyed evacuating catheter, such as is used for lithotrixy, and a rubber wash-bottle connected with it, by means of which the bladder can be emptied and filled with a stream of water of considerable force. Foreign bodies introduced into the bladder are, as a rule, of an elongated shape, and it will be found that the end of the body is sucked into the catheter and in this way may be withdrawn. He mentions cases in which he has in this way removed from the bladder foreign bodies, such as pieces of gum elastic catheters, and in one case a pig's bristle which had become coated with phosphates.

*Etiology of Tetanus.*—Dr. Larger, in a paper read at the Surgical Society of Paris, brought some new facts to support his theory of the contagiousness of tetanus. In January, 1882, a man died from tetanus following a wound of the hand. A few days afterwards, a man suffering from a wound, also of the hand, was placed in the same bed. He developed tetanus and died. At the same time a child of seven lying in the next bed, who had had one of his thighs amputated, also succumbed to tetanus. In Sept. 1886, four and a half years afterwards, a man with a wound in the finger was placed in the bed occupied by the first tetanic patient in 1882. He contracted tetanus, but did not die. The question of catching cold can only be raised in the second case. There was no tetanus in the town in 1882 or 1886, and

the ward during that interval underwent no rigorous disinfection. In none of the cases could the origin of tetanus be traced to any horse. The long interval separating the last from the preceding cases suggests coincidence rather than contagion. M. Larger notes that contagion with a long interval crops up three times among the facts he has gathered. Ten years had elapsed between two cases of tetanus occurring amongst the horses of one stable at Achères; two years between the time the last horse was affected with it and the time a woman contracted it after being injured in the same stable; lastly, eleven years between the cases of two workmen at Barentin who occupied the same room. M. Cagnat of St. Denis met with six cases in six months which occurred in six horses who had been operated on with the same *écraseur*, none occurring in amongst the animals operated on with other instruments. This *écraseur* became harmless after being dipped in boiling oil.—(*Revue de Chirurgie*, Jan. 1887; quoted in *Annals of Surgery*, July 1887.)

*Pneumotomy*.—Dr. G. Foubert (*Archives Général de Médecine*, Oct. 1887) has collected the cases of pneumotomy so far reported. The total number of cases is 80, with 47 cures and 33 deaths. The cures occurred principally in the hydatid cases. There is fair success with gangrenous cavities, bronchiectasis, and abscess. The summary is as follows: (1) Tuberculous cavities in which there was incision made either with or without resection of rib, 7; one recovered completely and one lived for some time. (2) Abscess of lung, 14 cases; 9 cures, 5 deaths. (3) Hydatids of lung and pleura, 34 cases, with 29 cures. (4) Gangrene of lungs, 18 cases; 9 recovered, 2 improved, and 7 died. (5) Bronchiectasis, 12 cases; 4 cured.—(*N. Y. Med. Record*, Oct. 29, 1887.)

*Intestinal Surgery*.—A remarkable paper on intestinal surgery was read at the General Surgical Section of the International Congress at Washington on Sept. 5th, 1887, by Dr. Senn of Milwaukee. A synopsis of this is given in the *Lancet* of Oct. 7th; the whole paper will, of course, appear in the Transactions. The interesting point in the paper is the healing of perforating gunshot wounds of the intestines by omental grafting, with or without scarification of the serous surfaces. The omental graft-

ing effectually prevents all escape from the intestine into the peritoneal cavity. This he calls (1) the adhesion experiment; (2) Ileo-colostomy in intussusception or intestinal obstruction, by opening the bowel above and below and bringing the artificial openings in apposition with decalcified bone plates; (3) Enterorrhaphy, or the rubber ring method without the omental flap, when excision of the bowel is necessary for gangrene, as in hernia. This mode of dealing with the bowel consists in bringing the healthy ends of the intestinal tube together by means of a circular indiarubber ferrule or tube made easily out of a piece of thin Martin's rubber bandage, about an inch long, inserted into each end of the bowel and the serous surfaces sewn together round this tube on the outside. Dr. Senn says that in dogs it is a matter of little consequence whether three inches or three feet of intestines are removed; resection of more than six feet is uniformly fatal. His results have been obtained chiefly from experiments on dogs, and the specimens were shewn to the Congress.

*Gastrotomy for the Digital Exploration of the Œsophagus and the removal of a foreign body.*—Till quite recently, when a foreign body was lodged in the œsophagus and could not be reached from the mouth or pushed into the stomach, œsophagotomy was performed in order to remove the body, if it was not too far down. When it was near the cardiac orifice of the stomach, its removal was left to nature. Sometimes the case terminated by the foreign body ulcerating into some of the neighboring blood-vessels and so caused the death of the patient. In the museum at Vienna is a specimen showing a piece of bone lodged in the œsophagus, and which had ulcerated into the aorta at the point where the gullet crosses it in the thorax. Foreign bodies have been vomited up after having been lodged many months in the œsophagus. I saw a case where a boy had accidentally swallowed one of those button-shaped tin whistles with a hole in the centre. It had lodged transversely in the œsophagus, and the boy had lived for nearly two months on liquid food, which trickled through the central hole. It was easily pushed down into the stomach, and a couple of days afterwards was passed per anum.

Should the body be lodged low down in such a way that it cannot be displaced from above, are we to leave the case to nature? This question is answered by two cases which have occurred within the year, where the foreign body was removed by gastrotomy; by this means the foreign body was reached from below. The first case recorded is that of Richardson of Boston, in the *Boston Medical and Surgical Journal*, Dec. 16th, 1886, when a plate containing four false teeth, which had been lodged in the œsophagus, near the cardiac end, for eleven months, was removed by an incision through the abdominal wall and stomach large enough to admit the hand and half the fore-arm. At the end of four and a half months the man was in good health and had gained 54 pounds. The second case was reported quite recently to the New York Surgical Society by Dr. W. T. Bull (*Medical News*, Oct. 22nd, 1887). Having read the account of Dr. Richardson's case and the experiments performed by him on the cadaver, which led him to recommend gastrotomy for bodies impacted at a distance of no less than 13 inches from the teeth after other means have failed, he resolved to employ gastrotomy in a case of impacted peach-stone in a boy 4 years of age, who fell under his care. Dr. Bull failed to dislodge the stone with instruments introduced through the mouth, and discarded œsophagotomy on account of the situation of the foreign body, which would be some six or seven inches from the œsophagotomy wound. Gastrotomy was decided on, and then, whilst considering the best method of performing it, was led to the following conclusions:

(1) That large incisions in the abdominal wall and stomach, together with manipulation of that organ outside the abdominal cavity, and the introduction of the hand into it, ought to be avoided if possible, as they would be very dangerous in so young a subject.

(2) That the exploration could be effected by the finger alone introduced through a small wound, if the anterior wall of the stomach were invaginated so as to fold itself about and behind the finger entering the œsophagus.

(3) That the nearness of the œsophageal opening in the diaphragm to the vertebral column would make that structure an

easy guide to the orifice, and, moreover, an incision in the median line would be nearer to that orifice than one parallel to the border of the ribs. This incision was in general preferable, and the hand or finger manipulating through it would be less encumbered by the overhanging ribs.

(4) That the nature of the body (it being smooth and free from sharp corners) made it probable that it would be safe to push it up from below, or to draw it up, in case it was not easily dislodged downwards into the stomach.

The operation was performed August 29th, a week after the peach stone had become impacted, after first ascertaining that the peach stone was still in position, 13 inches from the teeth. The abdomen was opened in the middle line by an incision three inches long, on a level with the fourth costal cartilage. The stomach was opened midway between the pylorus and cardiac end for  $1\frac{1}{2}$  inches; after passing in two loops of silk, the abdominal wound was also held apart by silk loops, and the finger introduced. The finger stopped up the wound so that nothing escaped, and as it pushed its way in it invaginated the abdominal wall. The foreign body could not be felt till a bougie was pressed gently on it from above. The stone could not be extracted by forceps, so a slender bougie was passed over it and projected from the mouth; then a sponge  $1\frac{1}{2}$  inches in diameter was tied to the inner extremity with silk, one end of which was left long. The sponge was pulled through, meeting with slight resistance, but the foreign body, although dislodged, was not brought up. A larger sponge was then tied to the long end of silk and drawn through. This brought the stone into the mouth, where it was easily extracted. The stomach wound was closed by suturing first the gastric mucous membrane and then the peritoneal coat with Lembert's sutures. Dressing of gauze and absorbent cotton. The boy made a rapid recovery. Fed by rectum for four days.

The points of interest in this case, says Dr. Bull, are: (1) The small wound in the stomach; (2) the invagination of the anterior wall of the stomach; (3) the use of loops of thread entrusted to assistants, by traction on which the edges of the wound in the stomach were kept close against the finger, so that

it acted as a plug and prevented the escape of fluid ; (4) the moderate manipulation of stomach itself.

*Removal of Needle from Heart.*—In the report of the last meeting of the German Surgical Congress in the *Centralblatt für Chirurgie* is a paper by Dr. Stetzner on the above subject. A student, after a spree, sought to commit suicide by driving a needle into his heart. Twelve hours after the introduction of the needle the first serious symptoms made their appearance. There was pain in the cardiac region, difficulty of breathing, a loud pericardial murmur at the apex. After 36 hours the symptoms became so serious that an operation for the removal of the foreign body was determined upon. No trace of the needle being found either under the skin or in the intercostal space, a piece of the fifth rib was resected, thus opening up the left pleural cavity ; then the pericardium was opened and about a teaspoonful of cloudy pericardial fluid ran out. Now the needle could be felt lying diagonally in the right ventricle. Its head was driven out through the anterior wall of the heart and then fixed in this position with the finger-nail. The irregular and violent beating of the heart made it very difficult to catch the foreign body with the forceps, and on attempting it, it again slipped into the ventricle, but this time assuming a vertical instead of a diagonal position, rendering it impossible to make any further attempt at its removal. In addition to this, an iodoform tampon which was used to block up the hole in the pleural cavity was drawn in by a very deep inspiration and could not be found again. The wound was plugged, and although the patient suffered from severe pneumothorax, with copious exudation, he recovered in four weeks. At present he enjoys good health. There is neither heart murmur nor abnormal pulse, nor any trace of pleural exudation. It is a matter of speculation where the needle now is. Dr. Ivan Hardt has collected 22 cases of needle in the heart, of which 19 were found accidentally whilst making post-mortems. In three cases the needles had been driven into the heart accidentally, and such a short distance that they were easily extracted. In the discussion which followed, Dr. Hahn of Berlin showed a knitting-needle which von Bergmann had removed from the heart of a girl aged 11. It had been driven

into her heart by a blow from a slipper. The patient suffered immediately from asphyxia. Under the third left rib a black point could be seen, which was felt to be the end of the needle. There was a systolic murmur at apex. The needle was easily extracted, and a previously very rapid pulse immediately fell to 90 per minute and the heart murmur disappeared.—(*Western Lancet*, Sept. 1887.)

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### Reviews and Notices of Books.

**Treatise on Human Physiology.** For the use of Students and Practitioners of Medicine.—By HENRY C. CHAPMAN, M.D., Professor of Institutes of Medicine, etc., in Jefferson Medical College. Philadelphia: Lea Bros. & Co.

Another large work of more than 900 pages has been added to the somewhat long list of excellent text-books on Physiology, so that there is now plenty of room for choice, according to the purpose or predilections of the teacher, practitioner or student. Prof. Chapman states his belief that "there is a felt want by students and practitioners of medicine for a systematic work, representing the existing state of physiology and its methods of investigation, and based upon comparative and pathological anatomy, clinical medicine, physics and chemistry, as well as upon experimental research." A foundation so broad for physiological teaching and reading must commend itself to the most thoughtful, at least, among the class for whom the book is written; and none will complain that the bill of fare presented is meagre, whatever the opinion entertained as to the success of the execution of so great a task as the author set before him.

Doubtless a good many students will experience a somewhat paralyzing effect on examining this somewhat ponderous volume; but whether the enthusiastic teacher can so enamour the student of his work as to remove this feeling remains to be seen. The book is clearly written, tolerably well arranged, and abundantly illustrated by well executed plates, though the greater part are not, of course, new. Anatomy, both coarse and fine, has received attention, but is not, as in some recent works, obtrusively predominant. Copious references to the monographs, etc.,

utilized are given. There is an unusually full explanation of the methods and apparatus employed in physiological research; in fact, completeness is, perhaps, the characteristic of this work, more than any other feature.

**A Text-Book on Surgery: General, Operative and Mechanical.**—By JOHN A. WYETH, M.D., Professor of Surgery in the New York Polyclinic; Surgeon to the Mount Sinai Hospital, &c. New York: D. Appleton & Co.

Dr. Wyeth has succeeded in compressing into less than eight hundred octavo pages a more or less complete description of almost every surgical disease and condition, including those of the eye and ear. The chapter on the ligature of arteries is undoubtedly the best in the book, the plates being beautifully colored and nearly all original. The subjects of genito-urinary disease and orthopædic surgery are likewise fully discussed, and show an intimate knowledge thereof on the part of the author. The work throughout is copiously illustrated, and may be relied upon as a fair guide to both the general practitioner and student.

**Manual of Operative Surgery.**—By JOSEPH D. BRYANT, M.D., Professor of Anatomy and Clinical Surgery, and Associate Professor of Orthopædic Surgery, Bellevue Hospital Medical College, &c. With about 800 illustrations. New York: D. Appleton & Co.

Dr. Bryant's varied and extended experience as an operating surgeon undoubtedly furnishes a sufficient excuse for the appearance of this manual, although we question the necessity for adding another to the host of similar productions already in the market. However, although the last, this is not by any means the least of the manuals on operative surgery at present before the profession. There is nothing very striking in Dr. Bryant's book, although many of the chapters, markedly those on the surgery of the nervous system and plastic surgery, are very complete, and evince a special knowledge on the part of the author. It is profusely illustrated, many of the cuts being new to us. In the chapter on the ligature of arteries, the anatomical relations of the latter are given in tabular form, evidently for



the accommodation of students of medicine, to whom, especially, we can recommend this manual.

**On the Pathology and Treatment of Gonorrhœa and Spermatorrhœa.**—By J. L. MILTON, Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. Octavo, 484 pages. Illustrated. New York: Wm. Wood & Co.

It is almost incredible that any writer could cover nearly five hundred octavo pages with a description of two such comparatively insignificant affections as gonorrhœa and spermatorrhœa. Such a feat, however, Mr. Milton has accomplished. We are familiar with a former edition devoted entirely to the pathology and treatment of gonorrhœa, but we find here many chapters revised and amplified, and the following subjects now added for the first time, namely, gonorrhœal affections of the heart and pericardium, the peritoneum and pleura, dura mater and sheath of the spinal cord, gonorrhœal pyæmia, pyelitis, etc. We observe nothing novel in connection with the treatment of this disease.

The author devotes nearly two hundred pages to the subject of spermatorrhœa, thus magnifying the importance of this disease, if, indeed, it deserves that title. In connection with the treatment, nearly every nervine tonic in the pharmacopœia is recommended, showing that the author has very little faith in his own methods.

We would suggest that in future editions the headings be made more distinct, and that the symptoms, complications and treatment be described separately, instead of being hopelessly mixed, as at present. As a book of reference, it will answer the purpose admirably.

**Health Reports—EIGHTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS; 1886.**

**MARYLAND STATE BOARD OF HEALTH; REPORT for 1887.**

Massachusetts shows a high condition of civilization, if, as a standard, we take into consideration the attention given to and the progress made in the preservation of the public health.

Acting under the best of health laws, there appears to be at work an energetic board of health, as the report of the current year plainly shows. It will be remembered that at the meeting of the American Public Health Association at Toronto last autumn, a series of resolutions were passed concerning the danger to be apprehended from the importation of rags from Europe. Massachusetts uses one-third of all the rags imported into the United States, and "no infectious disease has ever been traced directly to the medium of *imported* rags, except small-pox, and that disease in very few instances." Consequently, in the face of such an authoritative statement as that of the American Public Health Association, the State Board recognized the necessity of thorough investigation of this source of danger, designated by the Association "a prolific source of the spread of infectious disease." A letter from Dr. Sternberg, dated Dec. 22nd, 1886, is quoted, in which that eminent authority on disinfection states, "I am not by any means as positive with reference to the necessity for disinfecting *all* rags as I was two years ago." As the result of his inspection of foreign rag shipping towns, notably Ghent, Brussels, Berlin and Stettin, and of enquiries made with reference to other places, it was found that rags from ports in southern Europe, where cholera was present, are not liable to be shipped from these ports, but he was assured by many of the rag merchants with whom he conversed, that this could never occur on account of the low price of rags as compared with the cost of land transportation, and that, as a matter of fact, rags sent to each shipping port can only be collected within a limited area, the boundaries of which depend upon cheap transportation facilities by canals, rivers, etc. Moreover, these rags were warehoused often for many months, usually loosely piled up in open bins. These warehouses being situated in densely populated cities, it is evident that the first danger is incurred by those who handle the rags. It could not, however, be learnt that these establishments had proved dangerous to the public health, or that the health officials of any of these cities had found it necessary to place any restrictions upon the business.

Dr. Sternberg considers it desirable that all old rags should be disinfected by steam and then thoroughly dried before they

are packed in bales. During the prevalence of cholera in Europe all old rags shipped from parts known to be infected or in direct communication with infected places should be excluded. All rags shipped from healthy ports during the prevalence of cholera in Europe should be disinfected by steam before they are baled for shipment. In the absence of any prevailing epidemic, baled rags need not be treated differently from any other merchandise. Following up these reassuring statements, the State Board of Health instructed Dr. Charles Withington to investigate and report upon the whole subject of the transmission of infectious diseases by rags. A very valuable report was the result of his numerous and far-reaching enquiries, from which it appears :

1. That smallpox has been transmitted through the medium of rags in a certain number of cases, small in proportion to the whole number of persons who handle rags, but absolutely numerous enough to show that unvaccinated workers in rags are exposed to an actual, if not imminent, danger of infection from this source.

2. The source of this infection is more frequently domestic than foreign rags, though the disease has been caused by the latter.

3. Among the rarer means whereby cholera is transmitted are textile fabrics infected with choleraic discharges. There is evidence that clothing from cholera patients, and possibly clothing merely packed in an infected locality, has when, transported to a distance and there unpacked, caused the disease in those who have handled it, thus starting a fresh cholera focus. A distinction exists between clothing and rags, the latter, if transported, are certain to have undergone a carefully discriminative sorting and drying, and to have spent a considerable time in warehouse and on shipboard.

4. The statement that cholera has been transmitted by paper rags rest upon a solitary case, of which the details are not complete, and on the reliability of which some of the highest authorities have cast doubts. If the case be accepted, it is one of infection by domestic rags, carried only fifty miles from their place of collection.

So much, then, for the danger of cholera importation by rags,

and from such evidence we may infer that the danger lies wholly in the advent from the infected districts of Europe of men and women and their personal baggage. Preventive measures should be taken with a view to the closer inspection of passenger vessels, immigrants, and especially the baggage of passengers. The Massachusetts State Board extend their investigations into the food and drugs sold within the limits of the State. Milk examination has been systematically carried on since 1883. At the outset of this undertaking the number of samples found to contain less than the required 13 per cent. of total solids was found to be more than half of the number obtained; frequent examinations increased rapidly the per centage of solids. In 1883 there were, in 13 cities, but 22.5 per cent. of samples above the required standard of 13 per cent., while in 1885, and for the fourteen months ending May 31st, 1886, the samples above the standard were 56.2.

The adulteration of drugs is well understood in Massachusetts, and some of the results of analysis are surprising. All the eight samples of iodide of potassium had excess of the chloride of potassium; 1 out of 13 samples of spiritus etheris nitrosi was of standard quality; of opium, 16 out of 29 samples were below the standard quality, the percentage of morphine varying from 7.94 to 14.10; but 6 out of 18 samples of citrate of iron and quinine contained the proper amount of alkaloid. Only one was the true pharmacopœial preparation, not containing any ammonia.

The limits of this notice do not permit us to dwell upon the important subject of mortality rates and the excellent results of sanitary legislation, as shown by the generally low death rates of the towns of the State, to compare them with the high rates prevailing in this province, and to point out the reason for this distressing state of affairs. We heartily congratulate every citizen of the State on the good work done and good results obtained by their State Board of Health.

Maryland has not made such progress, but, nevertheless, has issued a most creditable health report. The vexed question of the disposal of excreta is under consideration by the Health Board of that State. The report mainly consists of the observations of the Secretary on the drainage systems of Europe,

more especially with reference to the sanitary requirements of Maryland towns, but little is mentioned that cannot be found in the ordinary text-books of hygiene.

**The Physician's Visiting List for 1888.**—Philadelphia: P. Blakiston, Son & Co.

This is the 37th year of publication of this favorite Visiting List. It contains, as usual, much matter that is all-important in cases of emergency.

**The Medical News Visiting List for 1888.**—Philadelphia: Lea Brothers & Co.

This List, beautifully finished, contains a well-arranged therapeutic table and also one of poisons and their antidotes, in addition to matters usually found in Visiting Lists.

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### Society Proceedings.

#### COLLEGE OF PHYSICIANS AND SURGEONS OF THE PROVINCE OF QUEBEC.

The semi-annual meeting of the College of Physicians and Surgeons of the Province of Quebec was held in Laval University, in the city of Quebec, on the 28th September. In the absence of Dr. W. H. Hingston, the President, who was unavoidably detained, the Hon. Dr. Ross, Vice-President for Quebec, took the chair. There were present: Dr. J. L. Leprohon, Vice-President for Montreal; Dr. E. P. Lachapelle, Treasurer; Dr. L. Larue, Registrar; Dr. A. G. Belleau and Dr. F. W. Campbell, Secretaries; Drs. E. A. de St. George, M.P., C. S. Parke, R. S. Rinfret, M.P.P., A. A. Waters, C. E. Lemieux, sen., L. J. A. Simard, of Quebec; T. A. Rodger, R. A. Kennedy, Robert Craik, R. P. Howard, L. B. Durocher, of Montreal; Malcolm Guay, M.P., St. Romuald; L. T. E. Rousseau, St. Casimir; P. E. Grandbois, M.P., Fraserville; Trancrede Fortier, St. Mary de la Beauce; C. E. Turcotte, St. Hyacinthe; Thos. Christie, Lachute; J. A. Duchesneau, Terrebonne; L. D. Lafontaine, St. Edouard de Napierville; David Marcil, St. Eustache; G. E. Badaeux, Three Rivers; Thos. Larue, Compton; F. J. Austin, Sherbrooke.

After the reading of the minutes of the previous meeting, DR. CAMPBELL, Dean of the Medical Faculty of Bishop's College, announced that as Dr. Kennedy had improved in health he would again take his seat on the Board as one of the representatives of Bishop's College.

Reports from the assessors of the Medical Faculties of Laval University in Quebec and Montreal, and of Victoria College, were received and adopted.

Dr. Manseau, of Red Jacket, Michigan, applied for a duplicate license, the original having been burned. The request was granted.

The following gentlemen having passed satisfactory examinations before the Board of Examiners on General Education, were admitted to the study of Medicine, viz.: George Cloutier, John Busby, Sylvia Lebœuf, G. Octave Johnson, Jules Chopin, Albert Aubry, Louis Coderre, Arthur Blouin, Geo. Eugene Guillemette, Adélarde Bazin, Aquila Pichette, Alexis Bellemarre, Charles E. L. Auger, Wilfrid Beaudoin, Gédéon Blanchet, P. B. Boisseau, Léger Brousseau, Achille Chandonnet, Achille Dagenais, Osias Daignault, James E. Kearney, P. O. Lauzon, Ovide Normandin, R. Auguste Paradis, J. N. Perreault, Joseph Poupert, François de Salles Prévost, Charles Auguste Prévost, and J. W. Rourke.

The following graduates received the license of the College: Joseph Lespérance, Montreal; Louis Joseph Octave Sirois, Bic; Chas. Onesime Honoré Desilets, Bécancour; Siméon Eugène Grondin, Quebec; Paul F. Brière, Thetford Mines; Nazaire Napoléon Gingras, St. Nicholas; George Tremblay Bélanger, Sherbrooke; Pierre Julien Bissonnette, St. Esprit; James H. Brodie Allan, John W. Stirling, Joseph Arthur Daignault, Sévérin J. Girard, Arthur Delisle, Kenneth Cameron, Montreal; Joseph S. E. Ferland, St. Julien, Co. of Montcalm; Vincent H. Morgan, Rivière Beaudette; Antoine A. Duhamel, St. Justin de Maskinonge; Wm. Christie, Lachute; Charles E. Rasconi, Pierreville.

The subject of the proposed new Medical Bill was then brought forward, when

DR. R. P. HOWARD stated that the two English Universities of McGill and Bishop's College had discussed it, and were united in opposing certain clauses, principally the one relating to the formation of a Central Examining Board and additions to the preliminary examinations.

The bill was then read clause by clause.

Dr. Howard proposed, and Dr. F. W. Campbell seconded,

that clause 7 of the present Act be maintained, and that it replace clause 24 of the proposed Act, thus doing away with the proposed Central Board of Examiners.

This amendment was rejected on the following division:—

*For*—Drs. Howard, Craik, Christie, Roger, Kennedy, Austin, Lemieux, Simard, Durocher and Campbell—10.

*Against*—Drs. Lachapelle, Duchesneau, Lafontaine, Thomas Larue, Grandbois, Paré, Rousseau, Marcil, Turcotte, Waters, St. George, L. Larue, Guay, Badeau, Fortier, Rinfret and Belleau—17.

Proposed by Dr. Marcil, seconded by Dr. Simard, and carried on a division of 16 to 12, that the date of holding the professional examination be made the first Wednesday in July. This amendment shows a change in the views of the Board, the date fixed by it at the previous meeting being the first Wednesday in May.

Dr. Howard proposed, seconded by Dr. Christie, that the preliminary examination for admission to medicine be relegated to the Roman Catholic and Protestant Board of Public Instruction. Lost—7 to 19.

The bill was then passed as a whole, and referred to the committee which has already had it in charge, with instructions to have it printed in English and French, and distributed to the members of the Board, also to take the necessary steps to have it brought before the Legislature of the Province at its next session.

A resolution of condolence on the death of Dr. Baddeau, sen., of Three Rivers, one of the oldest members of the profession, was passed, on motion of Dr. Leprohon, seconded by Dr. L. Larue.

After several votes of thanks the meeting adjourned, having been in session seven hours.

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## TORONTO MEDICAL SOCIETY.

*Stated Meeting, Sept. 29th, 1887.*

*Ovarian Cyst.*—DR. TEMPLE showed a large multilocular cystic tumor. The remarkable feature of the case was the obscurity in the diagnosis. The patient had been examined by various physicians since the discovery of the presence of the tumor seven months ago, and in no case was the growth supposed to be ovarian. The mass of the tumor lay to the rear of

the fundus uteri, so tightly packed into Douglas' cul-de-sac as to prevent fluctuation being perceptible through the vagina. Both ovaries were involved, the right chiefly. Several cysts were attached to the fimbriated extremities of the tubes. No antiseptic was used, but great attention was paid to cleanliness, and boiled water was employed for the instruments and dressings. The case did well.

*Etiology of Diphtheria.*—DR. ROSS drew the attention of the Society to a point in the etiology of diphtheria. A case might retain its power to infect others much longer than was generally supposed. Infected children should not be allowed to mingle with others till at least five weeks after all traces of the disease have disappeared. A case had lately come under his notice in which a child had communicated this dread disease to other children, whom it met for the first time a month after its apparent recovery.

DR. BRYCE said he had also met with several cases bearing out this point.

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*Stated Meeting, October 6th, 1887.*

*Epithelioma.*—DR. NEVITT presented a woman who, 29 years ago, had received a severe injury to the head from machinery, a portion of the scalp, the size of the palm, having been torn off from behind the right temple. A sore the size of a silver dollar had always remained. During the last three years this had been growing larger, granulations appeared, and large nodular swellings behind the ear. A nævus over the right temple had lately become involved. The patient had sought relief for the intense pain. No dead bone had been seen or detected by the probe. Topical treatment gave no relief. The opinion of the Society was asked as to the possibility of the lesion having become epitheliomatous.

DR. ATHERTON thought it had the appearance of keloid. The pain was doubtless due to the constant traction on the surrounding skin.

DR. W. H. B. AIKINS inclined to believe it epithelioma.

DR. DAVIDSON expressed the opinion that in either case the treatment of fine parallel incisions, as advised by Dr. Foster of New York, might be effectual.

*Steno-Carpine.*—DR. R. A. REEVE made some interesting remarks about this new local anæsthetic, a derivative of the thorny locust tree. It possessed advantages over both atropine and cocaine. Mydriasis lasting 48 hours could be produced by



a two per cent. solution. Unlike cocaine, it produced complete paralysis of accommodation, while the effect passed off in one-half the time of that produced by atropine. It possessed the power, moreover, of diminishing tension, an important consideration in the treatment of iritis. Cocaine was more useful for operative purposes. The toxic effects closely resembled those of strychnia. Death resulted in a few minutes.

*Fracture of Larynx.*—DR. ATHERTON read a paper on a case of probable fracture of the larynx.

In the discussion which followed, DR. MCPHEDRAN stated that laceration in the mucous membrane seldom occurs without concomitant fracture of the larynx. A small opening in the membrane would suffice to account for the great emphysema, if there were obstruction above the seat of the fracture.

DR. NEVITT related a case in which a young lady had twisted her neck in falling. There was sudden severe pain, tenderness down the left side of the larynx, and persistent attempts at swallowing.

*Cerebro-Infantile Paralysis.*—DR. MCPHEDRAN reported a case of cerebro-infantile paralysis. The history had been that of ordinary infantile paralysis. Hemiplegia was complete on the right side. The power to articulate was absent. Sensation was normal—an unusual thing. There was no hereditary tendency. The paralysis is passing away rapidly. Authorities state that in these cases the prognosis of complete recovery is unfavorable.

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*Stated Meeting, October 13th, 1887.*

DR. J. B. SMITH showed a case of ununited fracture of both bones in the leg of a child of three years. The lesion had occurred when the boy was six weeks old. He had moved about for a time by means of short coaptation splints. There was ligamentous union; the bones being much smaller than those of the sound limb, while there was about three inches of shortening.

There was a short discussion as to treatment, and as to the exact cause of the atrophy in both fragments.

*Scarlatino-Diphtheria.*—DR. GRAHAM reported a case of diphtheria in which, on the fifth day, the punctiform rash of scarlatina had developed. The history of diphtheritic infection was clear, while the rash was unmistakable. It appeared first upon the chest and covered the entire body. The throat presented the diffuse redness incident to scarlet fever. He believed this

to be a case in which the two diseases were combined. The patient had died.

DRS. CARSON and MCPHEDRAN had seen similar cases.

*Case in Practice.*—DR. HAMILTON showed a patient, a portion of the side of whose thumb had been split off with an axe, exposing the bone. Although the piece, two inches long, was entirely severed, and had remained so for some minutes, union had been secured by first intention, without sutures.

*Plastic Operation.*—DR. CARVETH showed a section of the nose with the cartilage attached, and a photograph of the recovered patient. Excellent results had been secured by skin-grafting and a plastic operation.

*Case of Epilepsy.*—DR. MCPHEDRAN then gave the history of a case of epilepsy and the post-mortem notes: M. C., aged 76, of good family history. As a boy he was apprenticed to a farmer who used him cruelly, striking him, on one occasion, a severe blow on the vertex. As a young man he displayed more than ordinary ability, and was energetic in his business. Forty-one years ago, after great exertion at a fire, he had an epileptic fit, and since then fits have recurred with greater or less frequency, being very frequent of late, always one and often several in one day. He always complained of great abdominal pain, sometimes before, but usually after the fit, lasting often for an hour or so. The convulsion began on some occasions on one side and on some on the other side, while in many both sides were equally convulsed. The direction of his falling was equally varied, both sides were equally convulsed when he fell on his back. For many years back he has been insane after many of the convulsions, often running into the street in his night-shirt, but never threatening to injure any one. His mental faculties have grown less keen. His health in other respects was good; he took large quantities of food. The bowels were fairly regular, never very constipated. Two days before his death he had a severe convulsion, after which pain in abdomen became severe. Vomiting set in; became grumous. Abdomen very tender and temperature slightly elevated. Post-mortem examination showed skull somewhat thickened, the hemispheres considerably atrophied and slight increase in cerebro-spinal fluid. The stomach and intestines much dilated, except the lower five feet of the ileum, which was extremely small. Many loops of the small intestines were adherent to each other; two or three were congested, and the adhesions soft, as if of recent occurrence. Along the attachment to the mesentery were many small sacular protuberances of the bowel, as if the mucous coat had been forced through the

muscular. The left renal vein was greatly dilated. There was nothing else worthy of note. No conclusions other than speculative can be drawn from the post-mortem conditions found. The abdominal pain was due, probably, to the adhesive inflammation that occurred from time to time, and, perhaps, bore a causative relation to the epilepsy. The pain may have been due sometimes to colic arising from the impediment offered to the passage of intestinal contents through the contracted portion of the ileum.

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### BRITISH COLUMBIA MEDICAL COUNCIL.

The Medical Council of British Columbia held its regular semi-annual meeting in New Westminster on Tuesday and Wednesday, the 1st and 2nd of November. There were present: Dr. Milne (Victoria), Registrar; Drs. Powell (Victoria), Tumstall (Kamloops), McGuigan (Vancouver), and Hannington (Victoria).

Resolutions were passed expressing regret at the death of the late President of the Council, Dr. C. N. Trew, and conveying to his family the sympathy of the Medical Council and of the profession throughout the Province.

Dr. W. A. DeWolf Smith of New Westminster was unanimously elected to fill the vacancy on the Council caused by the death of Dr. Trew.

After examination, the following gentlemen were admitted upon the register: Dr. Bodington, Vancouver; Dr. Fagan, New Westminster; and Dr. Sansom, Revelstoke.

The Council then adjourned, to meet in Victoria on the first Tuesday in May, 1888.

CANADA

# Medical and Surgical Journal.

MONTREAL, DECEMBER, 1887.

## REVERSAL OF THE NORMAL TEMPERATURE CURVE.

The distinguished Italian physiologist, Mosso, recently undertook to test the statement that there is a reversal of the temperature variations in night-workers. This has been asserted for a number of years, at intervals, by isolated observers. Mosso, not being convinced, decided to settle the matter to his own satisfaction by experiments on himself. He remained as quiet and free from occupation as possible during the day, which was also his sleeping period, while during the night hours he engaged in laboratory work. He found there was, indeed, a reversal of temperatures for the morning and evening, but this was only apparent, and not real. The essential and really instructive point clearly brought into view by these experiments is : that the slight normal variations in temperature for the twenty-four hours are now so associated with the tissue changes peculiar to certain periods that any attempt to reverse the activities of the body will result, if we may judge by an individual case, in temperature disturbance sufficiently marked to be fitly denominated febrile. Professor Mosso was obliged to discontinue the experiments after a few days on account of this disturbance.

All this is highly instructive and still more suggestive, but it will be seen that the interesting enquiry as to reversal of temperature curve in *habitual* night-workers is as yet unsettled. It ought not to be in itself a very difficult matter to decide by observations of the right kind on persons who have been engaged in night-work regularly for years ; though great care would be required, for Mosso found that the act of getting out of bed and

dressing alone raised the temperature appreciably; and, doubtless, a difference is recognizable between the waking and sleeping temperature independent of every other condition; it would be surprising were it not so. Mosso attributed the temperature variations he noticed in consequence of his change of habits to disturbances in the nervous system. The physiology of heat production and heat loss, especially of the former, is still very obscure, but is attracting considerable attention, and is in a fair way of being worked out before very long.

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### THE STENOCARPINE FRAUD.

For months past the medical journals on this side of the Atlantic have been vieing with each other who could say the most about the alleged new anæsthetic, stenocarpine. Many of them would now be glad if they had said less, for it turns out that stenocarpine is a fraud: that it is simply a mixture of cocaine and atropine. It is a severe lesson for those members of the medical profession who rush into print whenever they make trial of something new. Our literature teems with crudities begotten in the insane desire of men who, in their childish folly, wish to be the first to speak on a new subject. No doubt some ophthalmologists who rushed to tell us all they knew about "stenocarpine" are sadder, but wiser men this day.

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### NOTES AND COMMENTS.

The mental symptoms of chronic Bright's disease, characterized by French authors as *folie Brightique*, have scarcely received the attention they deserve at the hands of English-speaking writers. Acute mania may develop suddenly in a person with unsuspected renal mischief. I reported such a case in Seguin's *Archives of Medicine* in 1882. Last winter a man was admitted to the University Hospital who had been violent and disorderly for some days. I saw him the second day after admission, when he showed mental hebetude, but could be roused. There were increased tension, albumin and tube-casts in the urine, and hypertrophy of the heart. The mental symptoms were attributed to the chronic Bright's disease

and I feared the onset of coma. That night, however, he got up, wandered about the ward, jumped out of the window, and was found dead in the morning. In a third case which I saw with Dr. Weir Mitchell, the patient, a middle-aged man, lay in a torpid, dull state, with, at times, brighter intervals, in which he had delusions. The urine did not show any marked changes, and it was not until after the patient's death, when contracted kidneys were found, that the true nature of the case was revealed. A fourth case I saw with Dr. Mullin of Hamilton, in a man with well-developed symptoms of chronic Bright's disease. He had hallucinations and delusions, and was very suspicious, but not maniacal. With treatment he improved very much, and the mental symptoms entirely disappeared. These cases present interesting medico-legal aspects. In Dr. Mullin's patient, the question which we were called upon to decide was whether he was capable of making his will; certainly he was not at the time, but some months after, when I saw him again, his testamentary capacity was undoubted. In the case of the man who jumped out of the University Hospital, the widow is suing the hospital for damages, and it remains to be seen how far the institution can be held responsible for the accident. In a majority of these cases the symptoms are manifestations of uræmia, but it must not be forgotten that acute meningitis sometimes occurs in chronic Bright's disease, and may be characterized by an initial stage of excitement.

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That industry, ambition and health, when centred in an individual of fair abilities, command success, was never better illustrated than in the life of the late Samuel D. Gross, whose *Autobiography*, edited by his sons, has recently been issued. If genius is only an infinite capacity for taking pains, it would not be right to deny to Dr. Gross a share of this quality. He won success and fame by hard, honest, unceasing work in a profession for which he seems to have had, from the outset, a special aptitude; and, as he well says, "aptitude is nothing but genius or talent properly applied." As a student, as a young graduate, as a teacher and practitioner at Easton, Cincinnati, Louisville, New York and Philadelphia, throughout a long pro-

professional career of fifty-four years, industry was his watchword. He may, indeed, be said to have died in harness, as articles from his pen appeared within a few months of his death. And yet he claims to have been constitutionally lazy! He was, perhaps, the most voluminous American medical author. His work on Pathological Anatomy, which passed through three editions, remains the only native one issued in this country, and is still valuable on account of the numerous and accurate references to the older literature. A large part of the second volume is taken up with sketches of some of Dr. Gross's distinguished contemporaries—Drake, Dewes, Pattison, Chapman, J. K. Mitchell, and others—which will have a permanent value in biographical literature. Certainly nothing Dr. Gross has written will outlast his Autobiography. Text-books rarely survive their authors, but the record of such a life is of enduring interest, and will stimulate and encourage many who tread the rough and thorny road to professional eminence.

If, as a profession, we have been to blame for the careless use of morphia, whereby the *habit* has oftentimes been contracted, the judgment and the punishment alike are ours when we are called upon to treat such cases. Even with the resources of special hospitals and retreats the physician may be sorely tried and disappointment often await him after success has seemed certain. I have heard men express doubts whether a confirmed morphia-taker ever was permanently cured; certainly relapses are very common. A few weeks ago a woman came to my clinic at the Infirmary for Nervous Diseases, who had been an inmate of five or six institutions during the past four years, and from at least four of them had been discharged *cured*. Occasionally we meet with instances in which by sheer force of will the victim gains the battle, and I think that such cases are much less liable to relapse. I know of one case in which after three years, and of another, a woman, after many years enslavement, the habit was completely broken without any professional aid.

In the treatment of these cases every possible means must be taken to tide the patient over the critical period of withdrawal

of the drug. Very much depends on the condition of the stomach, and it is well known that patients who can take plenty of nourishment stand the deprivation much better than others. Weir Mitchell has recently practiced the plan of systematic feeding before starting the actual treatment, which is begun as soon as the digestion is in good order. Of substitutes for the morphia, when the diminution in the dose is felt, the hyosin hydrobromate and cannabis indica are probably the most serviceable. Nitro-glycerine has been strongly recommended by Jennings, who, in a recent number of *l'Encephale*, has insisted on the value of massage, electricity, and Granville's *percuteur*. A somewhat modified Weir-Mitchell method is applicable to a large number of morphia habitués. Seclusion and careful watching are in most cases essential, and if communication with the outside world be not entirely cut off, there is very great danger of deception. The devices resorted to are almost incredible, and, as a rule, not the slightest reliance can be placed on the patients' statements.

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In the *American Journal of Medical Science* for October, Professor Fraser of Edinburgh urges the use of the nitrites in asthma, on the ground that they relax the spasm of the bronchial muscles. If during an asthmatic seizure the presence of whistling râles is determined, and the patient inhales nitrite of amyl, in a few minutes the relaxation of the bronchial muscles will be followed by disappearance of the râles and greater ease in breathing. This makes a very interesting experiment, which I had an opportunity of verifying on three occasions in a patient in the Philadelphia Hospital. Certainly it is a strong point in favor of the view that the piping râles are due chiefly to spasm of the unstriped fibres of the bronchi. Fraser has found nitro-glycerine and nitrite of sodium very beneficial in asthmatic attacks, and they would probably have a more enduring effect than the nitrite of amyl.

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Rarely has a more graceful—and truthful—estimate of our profession been put on record than in the opening sentences of the dedication of Robert Louis Stevenson's recent volumes of



poems, *Underwoods*. "There are men and classes of men that stand above the common herd: the soldier, the sailor and the shepherd not unfrequently; the artist rarely; rarer still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only to be marvelled at in history; he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage. So that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing."

A chronic invalid, Mr. Stevenson sets forth in this way his gratitude to the many doctors in many lands who have helped him in a long struggle against an hereditary foe. In poem xxiv, *Not yet my soul these friendly fields desert*, he has beautifully expressed the spirit in which he has fought and worked:

For thy life,  
Up, spirit, and defend that fort of clay,  
Thy body, now beleaguered; whether soon  
Or late she fall; whether to-day thy friends  
Bewail thee dead, or, after years, a man  
Grown old in honor and the friend of peace.  
Contend, my soul, for moments and for hours;  
Each is with service pregnant; each reclaimed  
Is as a kingdom conquered, where to reign.

WILLIAM OSLER.

### Medical Items.

—Advices from London bring intelligence that Messrs. Fairchild Bros. & Foster of New York have been awarded the gold medal at the American Exhibition held in the former city, for their Digestive Ferments, Extractum Pancreatis, Peptonizing Powders, and Pepsine in Scales.

—*Medical Science* is the name of a new monthly journal published in Toronto, the first number of which has made its appearance. It has a learned quartet for editors. This makes the eighth medical journal published in Canada. If the latest of these can supply the practitioners of this country with original pabulum of a higher order than they have been getting in the past, then there is reason for the country to be congratulated.

ERRATA.—On page 242 (November number), fifth line of the third paragraph, for "periosteum," read "peritoneum."